Research Management Peer Exchange Hosted by the Wisconsin Department of Transportation Research Coordination Section April 9-11, 2002

Final Report



Research Management Peer Exchange Hosted by the Wisconsin DOT-Research Coordination Section April 9-11, 2002

Introduction

The Wisconsin DOT-Research Coordination Section hosted a peer exchange of its research program on April 9-11, 2002. See Agenda in Appendix A. Members of the peer exchange are listed below. Their biographies are in Appendix B.

- Jerry Baldwin, Library Director, Minnesota DOT
- Nelda Bravo, National Transportation Library Director, US DOT
- John Fuller, PhD, Professor, University of Iowa
- Bob Garrett, Research Director, Pennsylvania DOT
- Barbara Post, Information Services Manager, TRB
- Mike Shea, Director of Technology Transfer, Missouri DOT

The objectives of the peer exchange are summarized below. The full scoping paper is in Appendix C.

- Identify strengths, challenges and opportunities for the information services component of WisDOT RD&T programs.
- Identify the most pressing RD&T information needs of WisDOT managers and practitioners.
- Explore ways the WisDOT Research Section can work more effectively with the district transportation offices and with its partners in academia and industry in capitalizing on the value of information services.
- Explore potential areas of cooperation with regional and national efforts to improve the exchange and use of transportation information.
- Identify useful ideas that each member of the peer exchange team can apply practically in his or her own organization.

Members of the peer exchange planning team in Wisconsin are listed below.

- Patrick Casey, WisDOT Research Coordination Section
- Mark Chandler, FHWA Wisconsin Division
- John Cherney, WisDOT Librarian
- Steve Krebs, WisDOT Bureau of Highway Construction
- Dwight McComb, FHWA Wisconsin Division
- Nina McLawhorn, WisDOT Research Coordination Section
- Alan Rommel, WisDOT District 3
- Jeff Western, WisDOT Division of Business Management
- Ernie Wittwer, Midwest Regional University Transportation Center at UW-Madison

To prepare for the peer exchange, the visiting team reviewed documentation describing WisDOT's RD&T program and library:

- WisDOT RD&T Program Management Plan (Appendix D)
 A comprehensive description of WisDOT's research management process and the specific structures and strategies used by Wisconsin to implement the research portion of FHWA's State Planning and Research (SPR) program.
- WisDOT RD&T Procedures Manual Thirty standard procedures documenting required activities for Research Coordination Section

staff in the areas of SPR program planning, project development, contract administration, project management, financial reporting and coordination with national research.

- Research Annual Report 2000
- Customer survey results on the importance, use and effectiveness of current information services (Appendix E)
- Library survey results on collections, services and staffing of transportation libraries throughout the state (Appendix F)

In addition, at the opening session of the peer exchange, Research Administrator Nina McLawhorn reviewed the RD&T program's history, structure and recent focus areas: strategic planning, program streamlining, communications/marketing, program evaluation and information services (Appendix G).

The exchange team held discussions with the following WisDOT staff and partners:

WisDOT central office and Truax Center staff

- Ron Adams, Director, Bureau of Railroads and Harbors, Division of Transportation Infrastructure Development
- Bonnie Anderson, Budget Director, Division of Motor Vehicles
- Ruben Anthony, Jr., Administrator, Division of Transportation Investment Management
- Robert Arndorfer, Bureau of Highway Construction, Division of Transportation Infrastructure Development
- Rod Clark, Director, Bureau of Transit and Local Roads, Division of Transportation Investment Management
- Carol Cutshall, Director, Bureau of Environment, Division of Transportation Infrastructure Development
- John Haverberg, Director, Bureau of Highway Development, Division of Transportation Infrastructure Development
- Steve Krebs, Chief Pavement Engineer, Bureau of Highway Construction, Division of Transportation Infrastructure Development
- David Larson, Bureau of Highway Construction, Division of Transportation Infrastructure Development
- Joe Maassen, Office of General Counsel
- Daniel McGuire, Division of State Patrol
- Casey Newman, Chief, Strategic Issues Section, Division of Transportation Investment Management
- Rory Rhinesmith, Deputy Administrator, Division of Transportation Districts
- Linda Thelke, Director, Office of Public Affairs
- Jeffrey Western, Deputy Administrator, Division of Business Management

WisDOT District Offices staff

- Scott Ahles, Project Development Engineer, District 2
- Donna Brown, Urban Modal Group, District 2
- Ed Friede, Systems Planning Manager, District 2
- Patricia Jackson-Ward, Business Manager, District 1
- Dewayne Johnson, Deputy Director, District 2
- Kelly Langer, Freeway Operations Supervisor, District 2
- Leonard Makowski, Design Services Supervisor, District 2
- Mike Marciniak, Information Technology Manager, District 2
- Joshua Mount, North Projects Group, District 2
- Daniel Okpala, Technical Services Section Chief, District 1
- Michael Rewey, System Planning and Operations Chief, District 1
- Alan Rommel, Technical Services Section Chief, District 3
- Jean Trumpy, Librarian, District 2

• John Versperman, Project Development Chief, District 1

University staff

- Teresa Adams, Associate Director, Midwest Regional University Transportation Center, UW-Madison
- Pat Berge, Science Library, Marquette University
- Jason Bittner, Program Manager, Midwest Regional University Transportation Center
- Peter Bosscheer, Director, Wisconsin Highway Research Program, UW-Madison
- Jim Crovetti, Associate Professor, Marquette University
- Alex Drakopoulos, Associate Professor, Marquette University
- Jack Huddleston, Professor, UW-Madison
- Keith Knapp, Assistant Professor, UW-Madison
- Jeffrey Russell, Principal Investigator, Midwest Regional University Transportation Center, UW-Madison
- Aileen Switzer, Program Manager, Wisconsin Highway Research Program
- John Witte, La Follette School of Public Affairs, UW-Madison
- Ernie Wittwer, Director, Midwest Regional University Transportation Center, UW-Madison

Industry representatives

- Tom Amon, President, B.R. Amon and Sons
- Kevin McMullen, President, Wisconsin Concrete Pavement Association
- Mike Paddock, Senior Project Manager, CH2M Hill

These discussions provided the exchange team an opportunity to listen to perceptions, concerns and suggestions from all participants.

Team Observations

Several common themes emerged from the interviews:

Program Development

- The RD&T program is administratively sound and a worthy model. The program's organizational structure and operational procedures are clearly documented. Detailed information is maintained on the objectives and status of funded research projects.
- The program is actively measuring customer needs and using national and regional models to build an enhanced information services component into the existing framework.
- More emphasis on providing access to information and delivery of customer-targeted information is increasingly perceived as a cost-effective balancing of resources.
- Research projects are more likely to be focused on real needs when they are preceded by effective literature searches and reviews.
- Library and information services, while currently underutilized, offer significant opportunities for cost savings and increases in program efficiency.
- The Wisconsin RD&T program has the opportunity to provide national leadership in using information services to achieve DOT strategic goals.

User Needs

- WisDOT personnel are not as aware as they should be of the importance of information and strategies/tools for accessing information (in the library and on the Internet).
- The information needs of users vary considerably depending on responsibility--policy, operations, construction or public affairs.
- WisDOT managers need timely access to a wide variety of information for effective decisionmaking.
- External users in industry and academia expressed a desire for greater access to internal WisDOT information currently available only on the Intranet.
- Users want task-specific information delivered to them at the time they need it.
- Users want help identifying what is important and pertinent to them in the flood of information coming to them.
- Users want pertinent, current information "pushed" to them at their desks in a user-friendly package.

Leveraging Opportunities

- Increased communication, cooperation and coordination of RD&T activities offer opportunities for economies of scale.
- The RD&T program and library could both benefit from a clearer definition of their partnership and greater recognition of the importance of information services to the organization.
- District offices can benefit from accessing the central services of the library and RD&T program.
- The RD&T program and library could benefit from partnerships with the WisDOT Corporate University and other technical training efforts.
- Greater use should be made of state library cooperatives.
- Universities have information resources and skills that could enhance DOT effectiveness if they were effectively utilized.
- Industry users of information may be willing to contribute resources for establishing and maintaining an effective system.

Planned Actions – Visiting Team

Jerry Baldwin, Library Director, Minnesota DOT

I am impressed by the thinking going on in WisDOT about the information issue and the recognition by John and Nina of the natural alliance between research and the library. I am also impressed by Ruben's questions about the role of the library in the agency and resources available for filling that role. Wisconsin has the opportunity to take a lead in the Midwest in providing tools to help everyone be more productive. I plan to take back to Minnesota the concept of having the library and research on the Internet Web site tool bar as Wisconsin is planning to do. I also plan to look again at the issue of multiple collections of transportation materials around the state. This is an area that the University of Minnesota has been very helpful with.

Nelda Bravo, National Transportation Library Director, US DOT

The peer exchange interviews gave us the chance to hear transportation professionals in the public, private and academic sectors talk about information: what they need, when they need it and in what format. Among the "wants" are: more online access to full-text information, email reports of new releases in technical areas of interest, a central online resource for accessing State DOT reports, and training in using online information resources. We came away with ideas for new products and a sense of urgency for making improvements in the NTL's existing services. These include:

- investigating the use of "push technologies,"
- increasing the quality of NTL's online reference service and its ability to answer queries correctly and completely,
- provide online training in using web-based transportation resources, and
- developing partnering agreements with State DOTs to increase access to full-text research reports.

John Fuller, PhD, Professor, University of Iowa

In the course of the visit here at WisDOT I am reminded of the extensive resources available to me in a university setting. Through partnering with universities DOTs should be able access and benefit from some of these resources. Although much academic research is not terribly applicable to solving day-to-day problems it seems that some of this research could be restructured in this direction. The whole area of partnering between DOTs and universities seems to be full of exciting challenges.

Bob Garrett, Research Director, Pennsylvania DOT

The data provided to the exchange team in advance of our visit was very helpful. I have not seen a peer exchange where this much was done ahead of time, particularly the surveys of customers of the research program. This peer exchange has resulted in several new ideas that will be considered by PENNDOT for use in its research program, including:

- We will look carefully at the WisDOT implementation form. It is definitely a model form. We have not done our job if we haven't done everything possible to make sure research has an effect on our organizations.
- We will incorporate organizational aspects of the Program Management Plan to lay out elements of our overall program. Again a great model.

- We will look at using library and information services to conduct literature searches prior to
 contracting for research. This could be a significant cost savings since about 15% of the cost of
 research goes into literature searches. It should also improve the quality of our RFPs and work
 statements.
- We will move to place UW-Madison on PENNDOT's bidder's list. Several investigators there have expertise that we should be accessing.

Barbara Post, Information Services Manager, TRB

This peer exchange highlighted the value and importance of information services to the researchers and staff in the DOT. Based on observations during the exchange I have identified a number of areas to improve the information services provided by TRB:

- Promote and market TRIS and the Research in Progress databases. These resources are not widely known or utilized particularly at the district level.
- Develop a current awareness service by subject for TRIS and the RIP database—Push Technologies.
- Investigate ways for TRB to work with and support small and newly developed state DOT libraries.

Mike Shea, Director of Technology Transfer, Missouri DOT

I have been in my current job as technology transfer director for about a year and have seen that the foundation of tech transfer is the library. As engineers our in-baskets are overflowing with information. We need assistance processing this information, cutting through the noise to what's important. Our challenges in technology transfer are to deliver needed information on a timely basis, whether it's a best practice, a suitable vendor or a value engineering proposal. I am taking back with me to Missouri a renewed commitment to the information sharing process. A specific goal is to bring all of our library resources into a single database that all the districts have access to, similar to what is being envisioned for Wisconsin DOT.

Planned Actions – WisDOT Research Coordination Section

A. Attention to leveraging

- Collaborate with TRB & USDOT information services programs.
- Pursue MLS student practicum, sabbaticals, web services with academic community.
- Explore fee for service with industry partners.
- Use the Council on Research as research/library advisory board with quarterly reports to senior management through IDIA or board of directors, as appropriate.
- Participate in and explore regional and national collaboration through August 2002 Midwest Conference on Library and Information Services for Transportation.

B. Increase awareness of existing information services

- Continue communications and marketing efforts: annual report, newsletter, research briefs and Web sites.
- Maintain and build on research/library partnership.
- Visit districts and modal program managers to outline existing services.
- Focus on implementation and program evaluation.
- Promote distance learning of RD&T training classes

C. Conduct two-year pilot to facilitate departmental priorities

- Training
 - Partnership with Corporate University—help curriculum committees access best practices for project development skills training.
 - o Research/library component to new employee training
 - Mining the Internet for Transportation Information—increase availability through distance learning.
- Technical updates
 - O Develop online technical newsletters/bulletins in key transportation research areas and push to interested staff.
 - o Track and provide regular syntheses of key NCHRP and pooled fund projects.
- SAS reports (Scan-Analyze-Synthesize)
 - o Provide rapid-response topical reports to technical staff.
 - o Work with technical advisory committees on literature and best practice scans.



Transportation Building, 4802 Sheboygan Avenue, Madison, WI April 9 - 11, 2002

AGENDA

Peer Exchange Team

Jerry Baldwin, Library Director, Minnesota DOT Nelda Bravo, National Transportation Library Director, US DOT John Fuller, PhD, Professor, University of Iowa Bob Garrett, Research Director, Pennsylvania DOT Barbara Post, Information Services Manager, TRB Mike Shea, Director of Technology Transfer, Missouri DOT

Goal of WisDOT Exchange

To increase awareness of the value of WisDOT Information Services and commitment to implementing exchange recommendations.

Date/Time	Activity	Attendees	
Tuesday, April 9			
9:00 - 11:30 am	Orientation	Peer Exchange Team	П
11:30 am - 12:00 pm	John Haverberg, BHD Director on behalf of DTID	Peer Exchange Team	生
12:00 – 1:00 pm	Ruben Anthony DTIM Administrator Rory Rhinesmith, DTD Deputy Administrator	Peer Exchange Team	629
1:00 – 1:30 pm	WisDOT Library Visit	Peer Exchange Team	
1:30 - 3:00 pm	 Industry Panel WAPA - Wisc. Asphalt Pavement Association Tom Amon WACE - Wisc. Association Consulting Engineers - Mike Paddock WCPA - Wisc Concrete Pavement Association- Kevin McMullen 	Peer Exchange Team	144B HF
3:00 - 4:30 pm	COR Meeting	Peer Exchange Team	

Wisconsin Peer Exchange
Transportation Building, 4802 Sheboygan Avenue, Madison, WI
April 9 - 11, 2002

AGENDA

Wednesday, April 10			
10:00 - 11:30 am	District 2 (137B) Overview Introduce panel experts Gather input on current situation Identify gaps Determine general ways to improve services to districts	Jerry Baldwin Barbara Post Mike Shea	MILWAUKEE, Escort Nina McLawhorn
11:30 am - 12:30 pm	District 2 Library Tour & Discussion	Jerry Baldwin Barbara Post Mike Shea	KEE, Escor
1:30 - 3:00 pm	Marquette & UW-Milwaukee	Jerry Baldwin Barbara Post Mike Shea	MILWAU
8:30 -10:00 am	Truax (ASL Conference Rm): WHRP, TOC Chairs, Truax Staff	Nelda Bravo John Fuller Bob Garrett	ney
10:30 am-12:00 pm	District 1 (Columbia Rm, multi- media /screen/chart) Overview Introduce panel experts Gather input on current situation Identify gaps Determine general ways to improve services to districts	Nelda Bravo John Fuller Bob Garrett	MADISON, Escorts Pat Casey & John Cherney
12:30 - 3:00 pm	UW-Madison & MRUTC (414 Engineering Resources Building, diagonal to Engineering Hall)	Nelda Bravo John Fuller Bob Garrett	scorts Pa
3:30 - 5:00 pm	WisDOT User Panel (144B HF) Overview Introduce panel experts Gather input on current situation Identify gaps Determine general ways to improve services to districts	Nelda Bravo John Fuller Bob Garrett	MADISON, ES
5:30 pm	Team Reflection and Dinner	Peer Exchange Team	

Wisconsin Peer Exchange
Transportation Building, 4802 Sheboygan Avenue, Madison, WI
April 9 - 11, 2002

AGENDA

Thursday, April 11			
8:00 - 10:00 am	Recount Site-Visit Findings	Peer Exchange Team	
10:00 am - 12:00 pm	Report Preparation	Peer Exchange Team	生
12:00 – 1:00 pm	Lunch	Peer Exchange Team	951
1:00 – 1:30 pm	Recap Key Recommendations	Peer Exchange Team	o,
1:30 - 3:30 pm	Team Presentation Secretary's Office	Board of Directors; WisDOT Senior Managers; Academic, Industry, and FHWA Representatives; Peer Exchange Team	144B HF
3:30 pm	Peer Exchange Meeting Adjourned	Peer Exchange Team	

Wisconsin Peer Exchange Team Biographies April 2002

Jerry Baldwin

I have been employed for thirty years with the former Department of Highways and current Department of Transportation of the state of Minnesota. I began as a library technician supervising a half-time clerical assistant providing limited services to the department. I have shepherded the library through numerous reorganizations reporting at various times through personnel, systems, administration, organization development, communications and, currently, research offices. Mn/DOT Library currently has a staff of nine (director, 4 professional, 2 paraprofessional, 2 clerical) providing a full range of traditional and online services to the state's transportation community including information-related services for the state's LTAP center. I have limited experience in academic libraries, including seven years as a library technician with the University of Minnesota's Saint Paul (agricultural) Campus Library and four years as a part-time reference librarian with the College of Saint Catherine.

I have done considerable volunteer work in library and information services, providing involvement with public and school libraries in addition to special libraries. Significant activities include,

Currently:

TRB's Library and Information Science for Transportation Committee (A5017)

NCHRP Project 20-48 - Accessibility of Non-English Language Transportation Information Project Panel NCHRP Project 20-7/142 - Scoping Study for a National Strategic Plan for Transportation Information Management Project Panel

Formerly:

Chairman, Transportation Division, Special Libraries Association

Chairman, Minnesota Chapter, Special Libraries Association

President, Minnesota Chapter, American Society for Information Science and Technology

Participant, Minnesota State Library Structures Study

Chairman, Special Libraries Association Annual Conference Public Relations Committee

Co-Chairman, Second Minnesota Statewide All-Association Conference on Libraries Planning Committee President and Co-founder, Capitol Area Libraries Consortium

Chairman, Exhibits Committee for:

Annual Meeting, American Society for Information Science and Technology

First and Second Minnesota Governor's Pre-White House Conference on Library and Information Services

First Minnesota Statewide All-Association Conference on Libraries

Advisory Committee Member for:

MINITEX (Minnesota Interlibrary Telecommunications Exchange) Library Information Network

Metronet - Twin Cities Multi-County, Multi-Type Library Cooperative

Perrie Jones Library Fund (Saint Paul Public Library endowment)

Nelda Bravo

Director of the Bureau of Transportation Statistics' National Transportation Library for 16 months. Before joining the Bureau, I served as a technology transfer specialist with the Federal Highway Administration for 9 years. During that time I managed the national LTAP program, helped establish technology programs in Eastern Europe, and worked in FHWA's Midwestern Resource Center. I also participated in several national and international projects and studies that provided librarians and engineers with opportunities to work together on resolving problems of information access.

Originally from Texas, I got my start in technology transfer working at both the Texas Engineering Extension Service and the Texas Transportation Institute. My interest in libraries and transportation was developed as a library technician at the Texas A&M Sterling Evans Library. I cataloged transportation

Appendix B

materials for several years and also worked the reference desks in technical collections, government and state documents, and main reference.

I am involved in several TRB committees, past chair of the Transportation Division of the Special Libraries Association and a participant on several NCHRP panels.

My BA and MA degrees were received at Texas A&M University.

John Fuller

Professor at the University of Iowa since 1980, teaching transportation courses in the Graduate Program in Urban & Regional Planning and in the Departments of Economics and of Geography. Courses involve transportation policy, planning, economics, regulation and finance. Research for state and federal governments in transport policy, statistics and administration. Served as department chair and research institute director. Member of UI library advisory committee; former member of UI Research Council.

Prior to joining the UI, served as Deputy Director of the National Transportation Policy Study Commission in Washington and with the Wisconsin DOT as a member of the former Highway Commission (and earlier as Director of the Bureau of Environmental and Policy Analysis in the former Division of Planning). Taught in the UW-Madison Business School. Ph.D. in Economics from Washington State University. Member and chair of several Transportation Research Board Committees, NCHRP and TCHRP Committees; university TRB representative; former TRB Section chair.

Bob Garrett

Bob Garrett serves as the Chief of Research at PENNDOT. He supervises a staff of 8 who manage an average of 120 research projects with an annual investment of \$12 million. Mr. Garrett is currently the chairman of AASHTO's Region 1 Research Advisory Committee. He is the TRB State Liaison for Pennsylvania and serves on TRB Committee A5001-Conduct of Research. He has worked for PENNDOT for 7 years. Prior to joining PENNDOT he was a consulting engineer on large-scale land developments and an engineering educator. He is a graduate of the Stevens College of Technology and the Pennsylvania State University.

Barbara Post

Education:

BS Elementary Education from Gordon College, Wenham, MA MLS Catholic University of America, Washington, DC

Career

I began my career as a first grade teacher. In junior high school, I began working in the school library and since have worked in a variety of library position including working in public, academic, and special libraries. I began working at the National Academy of Sciences in their main library in charge of their serials - I moved to the Transportation Research Board where I have had a variety of titles: Assistant Librarian; Associate Librarian; Information Specialist, Librarian, and currently Manager of Information Services responsible for TRIS Database and the TRB Library.

Professional:

I am an active member in the Transportation Division of the Special Libraries Association

Mike Shea

Education

Master Public Administration 1997 University of Missouri M.S. Civil Engineering 1991 University of Kansas B.S. Civil Engineering 1986 University of Kansas

Experience

Research Technology Director MoDOT June 2001 - Present, Jefferson City, MO

Recent Activities include the following

RDT Library Implementation Plan

Missouri LTAP Program

GASB 34 Class Development and Training

MoDOT Work Zone Guide

Marketing and Implementation Research Results Committee (AASHTO RAC III)

Previous Work Assignments with MoDOT

VE Administrator 1998 - June 2001, Jefferson City, MO
Planning Engineer 1995 - March 1998, Jefferson City, MO
Squad Leader Dec 1993 - March 1995, Joplin, MO
Senior Highway Designer 1992 - Dec 1993, Kansas City, MO

Prior Work Assignments outside MoDOT

FHWA

Highway Engineer 1992 - June 1992, Washington D.C.

Johnson Brickell Mulcahy Consultant Engineers

Project Engineer 1988 - Jan 1992, Olathe, KS

City of Overland Park

Civil Engineer 1986 -- Jan 1988, Overland Park, KS

Wisconsin DOT 2002 Peer Exchange Research, Development and Technology Transfer (RD&T) Program April 9-11, 2002 Scoping Paper

Background

The Federal Highway Administration (FHWA) requires DOTs to conduct a peer exchange of their research programs at least once every three years to help foster excellence in RD&T program management. In September 1998, Wisconsin carried out its first peer exchange, aimed broadly at reviewing Wisconsin's research program structure. Agreement had been recently concluded with the University of Wisconsin-Madison for management of the highway materials portion of the research through a new partnership entity, the Wisconsin Highway Research Program (WHRP).

Focus of Peer Exchange

For this second peer exchange, WisDOT has chosen to focus on "building effective information services" into Wisconsin RD&T programs. This focus is not meant to limit discussion of such broader issues as organizational structure, customer satisfaction and research implementation, but is intended to help WisDOT managers gather input and best practices for benchmarking their efforts against successful state and national initiatives in the increasingly important area of information services.

Recent Developments in Information Services for Transportation NATIONAL

- The FHWA publication, *Value of Information and Information Services*, documents the ways in which information services can (1) reduce agency costs, accelerate technology development and improve operations; (2) speed the implementation of innovations; and (3) lead to more effective decision making at all levels of an agency.
- An NCHRP study (20-7/142) is under way to scope a National Strategic Plan for Transportation Information Management endorsed by the AASHTO Research Advisory Committee. The strategic plan will be customer driven, with primary customers defined as employees of AASHTO member agencies. Two key challenges to be addressed are: building the knowledge base—getting material "into the system"; and serving the customers—getting information "out of the system."
- AASHTO recently issued an RFP for proposals to help it further its goal of becoming a world-class transportation web portal that provides access to "a knowledge network for transportation professionals."

REGIONAL

- The National Transportation Library (NTL) is planning a pilot project to explore the feasibility of developing 1) a national collaborative transportation library network and 2) a union catalog for transportation through partnership with the Online Computer Library Center (OCLC). The pilot project will involve developing a regional network in the Midwest from which NTL could extrapolate what would be involved in creating a national transportation library network and union catalog. WisDOT will be intimately involved in this effort.
- WisDOT and the MRUTC at UW-Madison are hoping to partner with the NTL and TRB Committee A5017 on Library and Information Science for Transportation in hosting a conference on library and information services in Madison in August 2002. The conference will explore expanded regional sharing of transportation information.

WISCONSIN

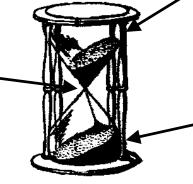
- Current plans for redesign of the WisDOT Internet Web site call for a library/research section as one of five "utility" buttons that will appear on every page of the site. Wisconsin research reports and links to regional, national and international resources will be available. The Research Section is working closely with the WisDOT library to make this portion of the Web site a rich and highly useable resource for WisDOT staff, contractors, investigators and students.
- The Research Section is developing a training course for WisDOT technical experts and program analysts that introduces them to Internet resources for 1) understanding the complex transportation sector and its stakeholder organizations; and 2) identifying information resources, best practices and national experts on emerging topics and agency challenges.

INFORMATION RESOURCES— VAST AND GROWING

Transportation books, research reports, journal articles, conference proceedings, Web sites, best practices, data sets, expertise, research in progress, etc.

INFORMATION SERVICES— VITAL COMPONENT OF RD&T

"Information processing" or "data mining" function—Work with WisDOT experts to Scan potential information, Analyze for value and applicability, Synthesize and disseminate to department experts and managers for further consideration or incorporation into practice (SAS).



INFORMATION DELIVERY— FOCUSED ON NEEDS

Transportation information in the form of concise, useable products that can help the department make decisions that improve processes and ultimately the quality of the transportation system for customers.

*Hourglass concept courtesy of Tom Walker.

Objectives of the 2002 Peer Exchange

1. What are the strengths and weaknesses of the information services component of WisDOT RD&T programs?

The process of gaining awareness of existing technical information through close familiarity with transportation research organizations and active use of information databases is a very high value activity—with the potential for significant savings in time and money by avoiding duplication of research effort. Clear and effective dissemination of applicable information improves decisions and hastens innovation.

- a. To what extent are WisDOT staff, research program managers, potential investigators and members of technical oversight committees utilizing proven technologies and best practices already developed and validated?
- b. To what extent is applicable technical information being effectively disseminated to WisDOT practitioners?
- 2. How can WisDOT improve the information services component of its RD&T programs? Continuous improvement requires step-by-step measurement of performance, identification of gaps and aggressive action to improve.
 - a. What resources, strategies, best practices and benchmarks can WisDOT consider to establish a clear path toward a vital, effective information services component to its RD&T programs?
 - b. What measures can be adopted to monitor our progress?
- 3. How can WisDOT cooperate with regional and national efforts to develop increasingly more effective means for accessing research reports, appraising best practices and exchanging technical information?
 - a. How can participants in the research process at every level in Wisconsin become more familiar with transportation information management issues nationally, as outlined in the March-April 1998 TR News article "Toward a National Transportation Library" and in the current NCHRP "Scoping Study for a National Strategy for Transportation Information Management."
 - b. How can we in Wisconsin do a better job, both at accessing information for our own uses and at assisting in the pursuit of this important national agenda?

RD&T PROGRAM MANAGEMENT PLAN

RESEARCH, DEVELOPMENT and TECHNOLOGY TRANSFER

For U.S. Department of Transportation

Federal Highway Administration (FHWA)

Wisconsin Division 567 D'Onofrio Drive High Point Office Park Madison, Wisconsin 53719-2814

Prepared by
Nina McLawhorn, Research Administrator
Wisconsin Department of Transportation

4802 Sheboygan Ave. Room 451 P.O. Box 7965 Madison, Wisconsin 53707-7965

> Revised March 20, 2002

Table of Contents

I.	<u>Introduction</u>	2
II.	Seven Keys to Building a Robust Research Program	3
III.	State Planning and Research (SPR) Program	5
IV.	Wisconsin Research Programs.	6
V.	RCS Program Management Responsibilities	9
VI.	National Research Activities.	10
VII.	Information Services	12
	Appendices	
A.	Organization Charts	15
B.	Glossary	
C.	Annual Timeline	
D.1.	Interagency Agreement for WHRP	20
D.2.	Interagency Agreement for MRUTC	31
D.3.	Interagency Agreement for MRUTC	
	(Deer-Vehicle Crash (DVC) Information Clearinghouse Initiation Project)	37
E.	1998 Peer Exchange Report	

I. Introduction

The RD&T Program Management Plan documents the management process used by the Wisconsin Department of Transportation (WisDOT) to carry out research, development and technology transfer (RD&T) activities that are part of its State Planning and Research (SPR) program. The general program and policy information contained here is complemented by the operating procedures of the Research Coordination Section (RCS).

Taken together, these documents describe "the management process and the procedures for selecting and implementing RD&T activities," as required by the Federal Highway Administration (FHWA). See Section 23CFR420.205 and 23CFR420.207.

WisDOT general procedures documents, such as the Facilities Development Manual (FDM) and the Transportation Administrative Manual (TAM) are also referenced. Appendix B is a glossary of pertinent terms and abbreviations from all referenced documents.

The Research Coordination Section in WisDOT's Division of Transportation Infrastructure Development (DTID) leads the department's efforts to coordinate RD&T activities. However, numerous other parties and institutions are involved, and the RD&T program, policies and procedures are subject to change.

WisDOT's research efforts are closely connected to the work of two key national organizations—the American Association of State Highway and Transportation Officials and the Transportation Research Board (TRB). We have an opportunity to help shape the research agenda through participation in the work of AASHTO's Standing Committee on Research and the Research Advisory Committee. In addition, WisDOT staff members serve on numerous TRB technical committees helping to advance transportation knowledge and its application to agency operations.

In 1998, the department entered into a formal agreement with the University of Wisconsin-Madison to assist in the management of its highway research program through a WisDOT-university-industry partnership called the Wisconsin Highway Research Program (WHRP).

The department's Council on Research (COR) continues to administer policy, operations, environmental and other non-materials research. The department's Technology Advancement Unit (TAU) in the Bureau of Highway Operations/Pavement Section continues to administer some research contracted prior to 1998 and also receives SPR funding for technology transfer activities.

The Midwest Regional University Transportation Center, formed in 2000 at the UW-Madison, also administers research projects supported by WisDOT SPR funds.

These various programs are described in Section IV and graphically represented in the organization charts in Appendix A. The timeline in Appendix C outlines the key activities of each program and the Research Coordination Section on an annual cycle.

II. Seven Keys to Building a Robust Research Program

Effective management of the WisDOT research program will help move us closer to the department's vision: "Dedicated people creating transportation solutions through innovation and exceptional service." Transportation research, which systematically explores alternative solutions, is an important part of this vision. The entire RD&T process is a powerful tool for putting innovation into practice, thereby helping to raise the level of service provided by the department.

The mission of the Research Coordination Section is to assure that the RD&T process effectively serves our customers—including WisDOT staff, our partners in industry and academia, and taxpayers—while complying with Federal Highway Administration (FHWA) requirements for state transportation research programs.

To continue improving our efforts, we have taken as guiding principles the Seven Keys to Building a Robust Research Program. Published in 1999 by the National Cooperative Highway Research Program (NCHRP), this document (Synthesis Report 280) is a distillation of the best thoughts of DOT research managers, transportation agency administrators, industry leaders and academics from around the country regarding the attributes of robust research programs. These are the programs "that flourish and thrive, are vital and enduring, and that support the overall performance of the parent organizations."

Such a research program is WisDOT's goal. Here, in summary, are the seven keys that we try to keep in mind as we plan and execute our efforts in the Research Coordination Section.

1. Found It on Trust

Trust between upper management and the research program is the ultimate goal. With it, a program prospers. Without it, a program becomes marginalized and ineffective, despite its other strengths. Trust can be fostered through a variety of attitudes and activities and can be injured by the careless or inattentive action of either party.

2. Market Boldly

Research managers must become effective advocates for their program. Marketing is needed at every stage of the process; in soliciting problems, in anticipating research needs, in selling the need for research, in justifying the time and budget required, in persuading others to test the product, in arguing for deployment, and in advertising successful products. A strong focus on the customer and the customer's needs is at the heart of the process.

3. Root It in Economics

As public officials, top DOT managers typically care about the economic use of taxpayer resources. In contrast, research managers often focus primarily on the program content. But managers of robust programs are sensitive to the need to use an economic rationale to ensure appropriate programs and their justification.

4. Make Deals Unabashedly

Directors of robust programs boldly cultivate alliances of all types. Partnerships and alliances add scale to programs struggling with insufficient resources and expand the program's constituency. Directors can often enhance programs by establishing relationships with other research entities.

5. Insist on Accountability

The uncertainty of the research process sometimes makes it difficult to require accountability in the same terms CAOs demand of other functions. Nevertheless, CAOs have a responsibility to set the strategic direction for research to ensure alignment with departmental goals, communicate this strategy to stakeholders, provide resources to accomplish the research required, and give their personal influence and support for appropriate research. Absent such requirements, research managers must find ways to become accountable. Failure to insist on accountability gradually erodes trust in the program, permitting it to spin away from and become irrelevant to the parent unit.

6. Embrace Policy Research

Policy research provides a communications channel between research and top management. Although research on pavements, bridges, and operations is crucial, top management is often more concerned about broad finance and administrative matters. Thus, a research unit that doesn't include policy research will have a more difficult task marketing its usefulness to a top management concerned primarily with policy issues.

7. Empower the Staff

Robust research requires a climate that fosters novel ideas. Researchers need to feel free to interact with other professionals across organizational and institutional lines, either indirectly or in person.

III. State Planning and Research (SPR) Program

The Federal Highway Administration provides major funding for specified levels of planning and research efforts in each of the states. The program under which WisDOT and the FHWA jointly administer these funds was established in the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) and continued with the 1998 Transportation Equity Act for the 21st Century (TEA-21). It is anticipated that the upcoming reauthorization of national transportation legislation in 2003 will retain this program in some form.

Federal Regulations - 23CFR420

Rules for administration of State Planning and Research (SPR) funds are published in the Code of Federal Regulations, Title 23, Part 420, www.access.gpo.gov/nara/cfr/waisidx_00/23cfr420_00.html. Pertinent sections of the code are described below and referenced in the *Procedures Manual*.

Research Funds and Planning Funds

Federal monies appropriated by Congress to the states for transportation programs are categorized by various formulas. Section 5105 of TEA-21 directs that two percent of funds for six core highway categories are to be used only for planning and research purposes and that not less than 25 percent of this amount is to be expended for research, development and technology transfer activities.

For Wisconsin, this means that approximately \$10 million of federal transportation monies each year are designated as SPR funds. Seventy-five percent of this total (\$7.5 million) goes to planning efforts, largely carried out by the WisDOT Division of Transportation Investment Management (DTIM). Twenty-five percent of this total (\$2.5 million) goes to research, development and technology transfer efforts, carried out by the Division of Transportation Infrastructure Development (DTID) through the Research Coordination Section.

Since SPR funds must normally be matched with 20 percent state funds (see 23CFR420.119), WisDOT contributes approximately \$575,000 in state funds to the SPR research program budget each year, bringing the total to around \$3 million. Budget figures for current and past years may be found in our annual report, Foundations for the Future: Report to Stakeholders, pages 4-6.

SPR Annual Work Program

Each year WisDOT documents its *proposed* expenditures of SPR funds, including a description of each activity and its estimated cost. See 23CFR420.209. RCS brings this information together prior to the start of the federal fiscal year each October 1 in Part II of a document entitled Joint Participating Intermodal Surface Transportation Planning and Research Work Program, (SPR Work Program). The *SPR Work Program* is prepared in conjunction with DTIM, which sets forth in Part I the required information on each of its proposed planning activities to be supported by SPR funds.

Peer Exchange

Every three years Wisconsin invites representatives from FHWA, academia, the Transportation Research Board and other state DOTs to review our RD&T efforts and share their own successes and challenges. See 23CFR420.207. Our last peer exchange took place in 1998. The next exchange is tentatively scheduled for April 2001 on the topic of information services.

TRIS OnLine and Research in Progress Databases

RCS strongly encourages the use of the Transportation Research Information Service (TRIS) database and other transportation information resources for literature searches and identification of best practices prior to scoping and approval of new research projects. Completed research project reports are sent to the TRB to be abstracted and entered into the TRIS database. Newly approved projects are entered by RCS directly into the online Research in Progress Database. See 23CFR420.207.

IV. Wisconsin Research Programs

Transportation RD&T efforts within WisDOT and among its partners are diverse and somewhat complex in how they are organized and interrelated. This overview briefly describes Wisconsin RD&T programs and associated management structures that are funded from the research portion of State Planning and Research (SPR) funds. Research Section responsibilities for these programs—related to project management, contracts, financial reports and national research activities—are detailed in the *Procedures Manual*.

The programs summarized in this overview are those that the Research Coordination Section is responsible for coordinating as part of WisDOT's compliance with federal regulations for SPR programs. Not included in RCS's responsibility or in this overview are research-related or technology transfer activities carried out in several WisDOT divisions and funded either from the planning portion of SPR funds or from various other non-SPR sources, such as department operating budgets, other federal funds, and grants and gifts. Examples of non-SPR projects for which federal funds are available include: experimental projects, experimental features studies and demonstration projects.

Research Coordination Section (RCS)

http://www.dot.state.wi.us/dtid/research/

The Research Coordination Section is charged with facilitating an effective RD&T program within the department and with partners outside the department. The RCS is part of WisDOT's Division of Transportation Infrastructure Development (DTID), and the research administrator reports to the DTID administrator. However, since the RD&T programs outlined below are department-wide and multi-modal, and involve partnerships with FHWA, universities and industry associations, RCS's coordination role extends to all of the department's divisions and to these other groups as well.

A key responsibility is assuring that SPR funds are appropriately used and that project results are implemented and benefits documented. See 23CFR420.207. To accomplish these objectives, the RCS works closely with financial and contracting personnel throughout the department, with managers responsible for program administration and with technical oversight committees reviewing the progress of individual projects.

The research administrator also has responsibility for coordinating with national RD&T efforts to which the department contributes funds, such as the Transportation Research Board (TRB) and its various programs, particularly the National Cooperative Highway Research Program (NCHRP).

The research administrator, who is chief of the Research Coordination Section, is the primary representative of WisDOT on the Research Advisory Committee (RAC), which supports the work of AASHTO's Standing Committee on Research (SCOR), and is the designated state representative to TRB.

Organization charts for WisDOT, DTID and RCS are shown in Appendix A.

Council on Research (COR)

The Council on Research is a group of WisDOT senior managers who provide leadership in identifying strategic research needs of the department. COR selects and oversees research projects in the areas of policy, operations, safety, environmental and other areas, exclusive of highway materials and construction research.

COR members are responsible for developing a long-range research plan and short-term (annual or biennial) research goals and priorities. They help build effective relationships with internal and external research communities and establish policies for allocation and oversight of research funds. COR makes the final selection of research projects and funding amounts from proposals submitted by WisDOT's divisions and offices.

The RCS assists COR members in solicitation of proposals, work plan development, contracting, meeting facilitation, agenda formation and distribution of minutes. The RCS is also responsible for managing many aspects of COR research projects. The research administrator designates one of the program analysts to have primary responsibility for COR support.

COR membership consists of one representative from FHWA Wisconsin Division and from each WisDOT division and office: Transportation Infrastructure Development (DTID), Transportation Investment Management (DTIM), Transportation Districts (DTD), Business Management (DBM), Motor Vehicles (DVM), State Patrol (DSP) and the Executive Offices. An additional DTD representative from one of the district offices is also a member. Division/Office administrators or their representatives are responsible for selecting COR members. The Research

administrator and designated RCS Program Analyst are ex-officio members of COR.

Technology Advancement Unit (TAU)

http://dotnet/dtidcons/pavements

The Technology Advancement Unit is part of the Pavements Section in the Bureau of Highway Construction in the Division of Transportation Infrastructure Development. Currently the role of TAU is focused on the transfer of pavement performance and preservation technology already in hand, product evaluation and approval, and trouble-shooting technical problems of WisDOT districts. TAU receives SPR funding for its technology transfer activities. TAU also carries out short-term research projects supported with state funds, grants or FHWA experimental funds.

The unit chief is WisDOT's second representative on the AASHTO Research Advisory Committee and is the department contact for national pavement research activities, such as the Strategic Highway Research Program (SHRP), the Highway Innovative Technology Evaluation Center (HITEC) of the Civil Engineering Research Foundation and the National Transportation Product Evaluation Program (NTPEP). TAU staff members participate in AASHTO, TRB and FHWA committees and project panels

TAU coordinates the activities of the department's Technology Advancement Steering Committee (TASC), composed of representatives from each of the eight districts and each of the bureaus in DTID, as necessary. The TASC serves as a formal communications mechanism through which information from TAU is given to staff in DTD and DTID.

Wisconsin Highway Research Program (WHRP)

www.whrp.org

In August 1998, WisDOT contracted with the University of Wisconsin-Madison to administer highway materials and construction research. An interagency agreement established the Wisconsin Highway Research Program (WHRP) as a multi-partnered effort, subject to periodic review and development into further relationships. Roles and responsibilities of the various parties are outlined in the agreement and continue to evolve, as documented in the scope of services that is part of each year's contract. Both the original agreement and current contract are shown in Appendix D.

The WHRP technical director and program manager from UW-Madison are responsible for administering the program. The technical director serves as the primary contact for highway research and coordinates the efforts of the technical oversight committees. The WHRP staff submits an annual work plan to the RCS identifying research projects and costs along with its administrative budget. The WHRP staff oversees ongoing projects and assures overall program compliance with FHWA and WisDOT requirements.

The WHRP steering committee provides policy guidance to the WHRP staff and technical oversight committees. The steering committee is currently composed of representatives from WisDOT modal divisions (DTID, DTIM and DTD), FHWA Wisconsin Division, academia and five industry associations. These associations are the Wisconsin Transportation Builders Association (WTBA), the Wisconsin Asphalt Pavement Association (WAPA), the Wisconsin Concrete Pavement Association (WCPA), the Wisconsin Association of Consulting Engineers (WACE) and the Wisconsin Earth Movers Association. The DTID administrator chairs the steering committee.

Four standing technical oversight committees (TOCs) are part of the WHRP structure, with responsibility for project development and oversight in the following areas: rigid pavement, flexible pavement, structures and geotechnics. A WisDOT appointee chairs each TOC, with additional members selected from FHWA, industry and academia.

See Appendix A for an organization chart of the WHRP.

Midwest Regional University Transportation Center (MRUTC)

www.mrutc.org

In April 2000, a consortium of the University of Wisconsin-Madison and six other academic institutions in the region was selected to receive federal funding in the amount of up to \$1 million per year for five years for the purpose of establishing a University Transportation Center. The center, housed at UW-Madison, adopted as its theme the "optimization of transportation investment and operations." In addition to carrying out and contracting for research, the MRUTC supports technology transfer and educational activities related to transportation asset management. WisDOT contributes to support of the MRUTC with SPR funds.

MRUTC staff consists of the center director, associate director, program manager, research manager and project assistant, with numerous faculty members and students serving in affiliated roles. The WisDOT Research Coordination Section is currently responsible for processing MRUTC contracts financed with WisDOT funds and assuring related compliance with state and federal requirements.

An executive committee provides overall guidance to the MRUTC. The ten-person committee is composed of CEOs of departments of transportation (DOTs) in the region along with academic and industry representatives. An advisory committee gives input into specific MRUTC activities. Members include a representative from each of the six DOTs in the region, the seven participating academic institutions and the Federal Highway Administration.

The MRUTC and the WHRP cooperate in several ways and share some staff members. Their relationship with each other as well as with WisDOT and the Research Coordination Section continues to evolve.

See the MRUTC Web site for an organization chart and other detailed information.

Pooled Fund Projects

http://www.tfhrc.gov/site/active.htm

FHWA encourages states to organize joint RD&T efforts among themselves, whereby participating states contribute expertise and funding toward the solution of a common problem. FHWA itself may organize a pooled fund project and invite states to contribute to it. Part of the annual budget for the research portion of SPR funding is set aside for contributions to pooled fund projects.

The RCS coordinates the selection of pooled fund projects proposed through the Wisconsin Highway Research Program and the Council on Research. The DTID and DTIM administrators make the final decision as to which projects are selected. Tracking the progress of these projects, disbursements of Wisconsin's contributions and communication of the interim and final results have also been the responsibility of the Research Coordination Section.

Some sections and divisions within WisDOT contribute non-SPR funds to pooled fund projects. These projects are not coordinated through the RCS.

Transportation Information Center (TIC)

http://tic.engr.wisc.edu/

Established in 1983, Wisconsin's Transportation Information Center (TIC) is part of the national network of technology transfer centers of the Local Technical Assistance Program (LTAP). Each center provides training and technical assistance to local highway agencies. The Wisconsin TIC is operated by the University of Wisconsin-Madison Department of Engineering Professional Development.

Funding for the TIC is provided by FHWA, UW-Madison, participant fees and WisDOT's Division of Transportation Investment Management (DTIM). The Local Transportation Programs and Finance Section in DTIM works with the TIC to coordinate technology transfer services to local highway agencies.

In addition to providing training workshops and publishing technical bulletins, the TIC also publishes a quarterly newsletter, maintains a video lending library, provides technical assistance on request and supports Wisconsin users of its PASERWARE pavement management system.

V. RCS Program Management Responsibilities

A major goal of carrying out transportation research is to discover and apply better approaches delivering transportation services and products to the public. Management of research efforts, therefore, must focus on building strong connections between the needs of the department and the outputs of research. This means aiming to assure that the right projects are identified for funding, that they are carried out expeditiously and effectively and that useable results are put into practice.

A similar charge is contained in FHWA's requirement that WisDOT "monitor all activities, including those of its subrecipients, supported by FHWA planning and research funds to assure that the work is being managed and performed satisfactorily and that time schedules are being met." See 23CFR420.117.

These monitoring responsibilities include broader program issues such as identification of appropriate research topics, non-duplication of existing research, dissemination of results and implementation into practice. <u>See</u> CFR420.207.

Project Management

Monitoring responsibilities are also at the individual project level. These include coordination of the research solicitation and contracting process, administration of federal and state funds paid to investigators, complying with nondiscrimination and other provisions, and the creation and reporting of financial records related to SPR funds. See CFR420.121.

In addition to meeting federal requirements, the Research Coordination Section must also assure compliance with policy directives from WisDOT and the state of Wisconsin.

The procedures for managing WisDOT's research programs and their associated projects have evolved over the years and are under regular review. The current practice related to project solicitation, monitoring, project completion and implementation is documented in section 2 of the *RCS Procedures Manual*.

Contract Management

WisDOT contracts out most SPR-funded research to university or private sector investigators. Contractual arrangements are somewhat different from project to project depending on the organization performing the work, the dollar amount of the contract, the mix of state and federal funds, and other factors.

The contracting process is guided by SPR program rules in <u>23CFR420</u> and also by extensive rules in WisDOT's *Facilities Development Manual*, Chapter 8, and the *Transportation Administrative Manual*. It is a primary responsibility of the Research Coordination Section to be aware of state and federal contracting requirements and to work closely with WisDOT and FHWA personnel in the execution and monitoring of contracts.

Current practice followed by the RCS related to department, WHRP, MRUTC and pooled fund contracts is described in detail in section 3 of the *RCS Procedures* Manual.

Financial Reporting

Good management of the research program means careful accounting of expended funds and, increasingly, a financial measure of the value of the research investment. These objectives require not only tracking expenditures on a project-by-project basis, but also as they relate to categories of research, benefits realized and the overall impact of the program.

Using information submitted by program and project managers and data in financial reports received from WisDOT financial managers and FHWA, the RCS prepares regular reports on research expenditures of both federal funds and state matching funds as described in detail in section 4 of the RCS Procedures Manual.

VI. National Research Activities

Transportation research is a high priority of the U.S. Department of Transportation and of state DOTs across the country. Numerous public and private non-profit organizations work together to accomplish the challenging tasks associated with improving the transportation system. WisDOT works with many of these organizations to advance our own research agenda and solve common problems.

U.S. Department of Transportation (USDOT)

www.dot.gov

Research is a vital part of each of the agency's nine major administrations, such as the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The Research and Special Programs Administration (RSPA) is home for research programs that do not fit into the missions of the other modal administrations.

Federal Highway Administration (FHWA)

www.fhwa.dot.gov

FHWA is a primary partner with WisDOT in the formulation and administration of our research programs. Expert FHWA staff members work on advanced highway technologies in more than 40 different laboratories and testing facilities at the Turner-Fairbank Highway Research Center in McLean, Virginia (www.tfhrc.gov). Personnel assigned to the FHWA Wisconsin Division (www.tfhwa.dot.gov/widiv) work directly with WisDOT in planning and implementing research programs.

American Association of State Highway and Transportation Officials (AASHTO)

www.transportation.org

AASHTO is a nonprofit, nonpartisan association representing highway and transportation departments in the 50 states, the District of Columbia and Puerto Rico. It represents all five transportation modes: air, highways, public transportation, rail and water. Its primary goal is to foster the development, operation and maintenance of an integrated national transportation system.

AASHTO Standing Committee on Research (SCOR)

SCOR members solicit research problem statements from the state DOTs and other AASHTO committees, prioritize them and recommend an annual research program to the AASHTO Board of Directors. This research is carried out under the direction of the Transportation Research Board (TRB) through its National Cooperative Highway Research Program (NCHRP) and other programs. SCOR also works with other AASHTO committees to define research emphasis areas, recommend appropriate funding levels and advocate for highway and other transportation research on behalf of the association and member departments.

Research Advisory Committee (RAC)

www4.nas.edu/trb/scor/scormain.nsf

The Research Advisory Committee (RAC) to AASHTO's Standing Committee on Research (SCOR) is composed of one or more representatives from each of the state DOT research programs. The Research Administrator is WisDOT's primary representative. RAC participates in establishing the National Cooperative Highway Research Program (NCHRP), facilitates the identification of ongoing and planned state-only projects through TRIS Online and TRB Research in Progress, and provides advice on transportation research matters to SCOR and the AASHTO Executive Committee.

Transportation Research Board (TRB)

http://nationalacademies.org/trb

The TRB is a unit of the National Research Council, a private, nonprofit institution that is the principal operating agency of the National Academy of Sciences and the National Academy of Engineering. TRB's mission is to promote innovation and progress in transportation by stimulating and conducting research, facilitating the dissemination of information, and encouraging the implementation of research results.

WisDOT works closely with TRB to address research needs in coordination with AASHTO's Standing Committee on Research and the Research Advisory Council (RAC), composed of state DOT research administrators. Many WisDOT staff serve as volunteer members on TRB technical committees, helping to advance transportation knowledge and its application to agency operations.

In order to stay in touch with the needs of the state DOTs it serves, TRB annually arranges for one of its staff to visit each state. The site visit is an opportunity for two-way dialogue, through which the TRB representative gets a first-hand look at recent developments at WisDOT and among its partners and Wisconsin transportation research managers have an opportunity to make suggestions to TRB.

TRB fulfills its mission through the work of its standing technical committees and task forces composed of more than 4,000 volunteer engineers and through publication and dissemination of reports and peer-reviewed technical papers. The TRB annual meeting typically attracts 8,000 transportation professionals from throughout the United States and abroad.

The following TRB programs and the information, technology and practices they generate are an invaluable resource for WisDOT staff and their partners in Wisconsin. The RCS works to promote broad awareness of the many useful products and services of these programs.

National Cooperative Highway Research Program (NCHRP)

www4.trb.org/trb/crp.nsf/NCHRP+projects

WisDOT annually contributes 5.5% of its SPR funds to support activities of this important national program. NCHRP was created in 1962 as a means to conduct research in acute problem areas that affect highway planning, design, construction, operation and maintenance nationwide. Each year, the Standing Committee on Research of the American Association of State Highway and Transportation Officials (AASHTO) recommends research projects to be undertaken through the NCHRP program. WisDOT has the opportunity to submit project proposals for NCHRP consideration and rate the final list of projects to be funded.

Every research project funded by NCHRP is overseen by a project panel of experts from across the country, many from state DOTs. Each year WisDOT is invited to nominate individuals for membership on new NCHRP project panels.

Transit Cooperative Research Program (TCRP)

www4.trb.org/trb/crp.nst/TCRP+projects

The TCRP, created in 1992 and modeled after the longstanding and successful NCHRP, undertakes research and other technical activities in response to the needs of transit service providers. The scope of TCRP includes a variety of transit research fields including planning, service configuration, facilities, operations, human resources, maintenance, policy, and administrative practices. WisDOT's participation in annual TCRP solicitation of research and service on project panels is coordinated by the Public Transit Section in the Bureau of Transit and Local Roads.

Synthesis Reports

www4.trb.org/trb/synthesis.nsf

Under the sponsorship of NCHRP and TCRP, TRB prepares ongoing synthesis reports of current practice in the highway and transit fields. These reports gather and evaluate documented research results as well as valuable experiences of practitioners into single, concise documents pertaining to specific problems or sets of closely related problems.

Long Term Pavement Performance Studies (LTPP)

www4.nationalacademies.org/trb/dive.nsf/web/long-term_pavement_performance_studies

The goal of the LTPP studies is to discover, through a series of rigorous long-term field experiments employing inservice highways, the causes of physical deterioration of highway pavements. The LTPP program is the largest pavement performance research program ever undertaken, gathering data from 2,000 pavement test sections over a 20-year test period. Numerous highway sections in Wisconsin are a part of LTPP.

Strategic Highway Research Program (SHRP)

www4.trb.org/trb/dive.nsf/web/shrp implementation

SHRP was authorized by Congress in 1987 as a highly focused, \$150 million, 5-year effort to improve the performance of highway materials and highway maintenance practices. Now that the focus of SHRP is on implementation of results, Congress has requested that the TRB initiate a new study to determine the goals and research agenda of a prospective Future Strategic Highway Research Program (F-SHRP).

VII. Information Services

The sheer volume of information related to transportation research is staggering. Individual state DOTs, universities and the private sector across the entire country and internationally all contribute to the growing body of transportation knowledge in the form of research reports, journal articles, conference proceedings, documented practices, new technologies, Web sites and on-line technical discussion groups.

For a state DOT, two primary challenges are associated with this explosion of transportation information: (1) accessing and appraising potentially applicable information *before* defining and carrying out new research; and (2) effectively communicating useable results to the appropriate personnel within the agency and to the rest of the transportation community *after* research is complete. To help meet these challenges, the Research Coordination Section works with state and national partners to provide a number of services and products to its customers.

Recognizing the growing importance of information services to a robust research program, WisDOT has identified this area as a focus for its 2002 Peer Exchange.

WisDOT/FHWA Library and Information Services Team

Formed in April 2001, the WisDOT/FHWA Library and Information Services Team works to raise the visibility of currently available information services, enhance team members' skills and effectiveness, identify unmet needs and improve services to WisDOT staff and partners. A strength of the team is the partnership between personnel from FHWA Wisconsin Division and WisDOT staff from its libraries, Research Coordination Section (RCS) and Office of Public Affairs (OPA).

Training in the Use of the Internet for Transportation Information

While many WisDOT employees are comfortable using the Internet to find general information, the recent experience of the Research Coordination Section is that the majority is not familiar with the rich and targeted transportation databases now available for locating pertinent information and recently developed technologies.

RCS has presented pilot classes explaining the use of national and international databases of transportation information. A series of classes geared to several key WisDOT job classifications, including managers, engineers, policy analysts and technical engineering specialists will be offered in 2002. Classes will be designed for both new and experienced employees with the goal of providing the tools for exploring the body of knowledge related to any specific transportation topic as well as for surveying the breadth of issues and organizations at work in the field as a whole.

WisDOT Internet and Intranet Web Sites

The RCS works closely with the WisDOT Library to bring information about Wisconsin transportation research to the desktops of every department employee and partner. The department's newly redesigned Internet site will feature Library/Research as a resource on the utility bar. Within the Library/Research pages, Wisconsin research programs and reports will be listed, along with carefully tiered information on national and international transportation resources. On the department's dotnet site, the RCS features recent information of interest to WisDOT staff and places notices in the weekly electronic employee bulletin pointing to this information.

Transportation Research Information Services (TRIS) Online

The RCS uses TRIS as the primary resource for indexed transportation information. It is the first, and largest, database to consult for assembling a view of research results on any transportation problem. We submit a copy of all completed research reports supported by SPR dollars to the TRB librarian for inclusion in TRIS. The RCS also promotes the value of TRIS for all WisDOT employees as a first step in locating needed technical information and references.

TRB Research in Progress (RiP)

The RCS enters its new research projects into the on-line RiP database to make our current efforts immediately known to the transportation research community throughout the world. We encourage staff associated with all Wisconsin programs to review recent research indexed in RiP when considering new projects. The awareness that FHWA and/or other states are engaged in similar lines of research may lead to formation of a pooled fund research project, reducing duplication and saving time and money.

RD&T Today Quarterly Newsletter

This publication of the RCS is aimed at raising awareness among WisDOT employees and its partners of the significant efforts underway in Wisconsin to improve transportation with well-conceived research supported by SPR dollars. Basic information is given about the rapidly developing structure of Wisconsin's research programs, along with details about new projects, features on recent successes and promotion of available services.

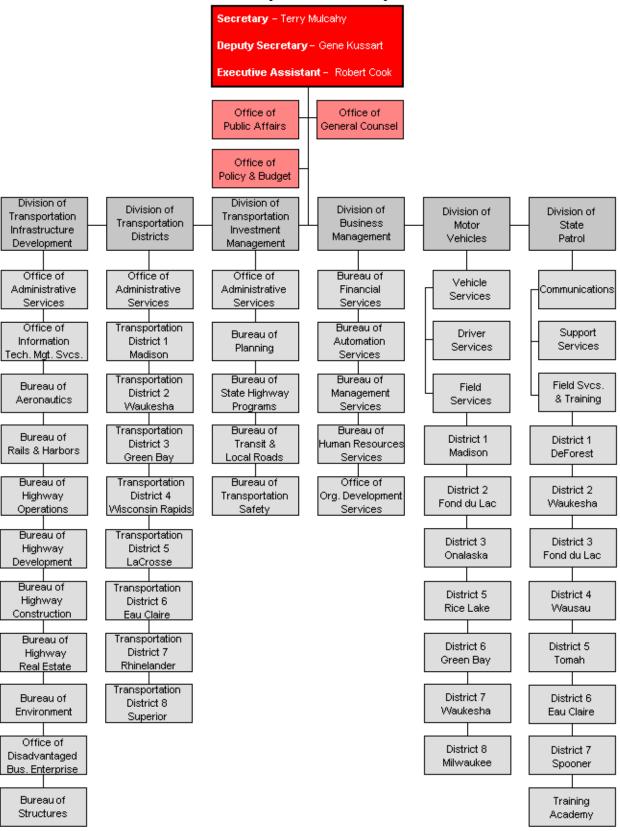
RD&T Briefs

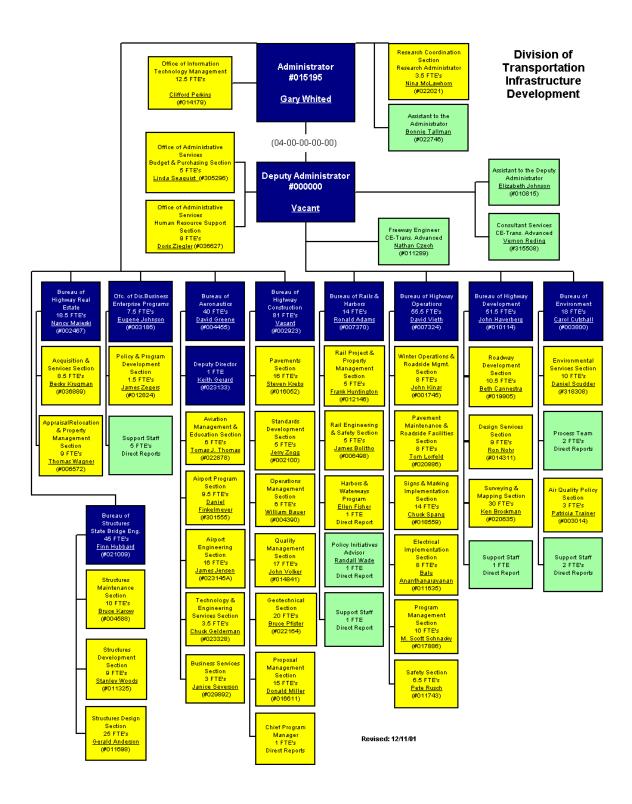
Each SPR research project completed since January 2000 by any of the programs coordinated by RCS is summarized in a two-page brief that emphasizes the purpose for undertaking the research and the value of its results to the Wisconsin transportation community. The audience for the briefs includes WisDOT managers and other technical and non-technical staff, members of the state legislature, contractors and consulting engineers, faculty and students in engineering and other transportation-related fields, and other state DOTs.

Annual Report to Stakeholders

At the beginning of each calendar year, three months after the start of the federal fiscal year, the RCS publishes a record of the research of the just-completed fiscal year. This document is designed to be a concise summary of the activities of Wisconsin research programs coordinated by the RCS. It updates program descriptions and goals and identifies emerging trends in Wisconsin and national transportation research. All completed, in-progress and newly undertaken projects are listed, with detailed information on their purpose, cost, investigating agency and estimated date of completion. Projects are featured that contribute to improvements in the quality of Wisconsin transportation systems and savings in time and money. A year-to-year comparison of program and project topics, costs and other relevant features is presented in graphical format.

Appendix A: Organization Charts Wisconsin Department of Transportation





Appendix B: Glossary

AASHTO American Association of State Highway and Transportation Officials

BFS Bureau of Financial Services in the Division of Business Management (DBM)

COR Council on Research

DBM Division of Business Management

DTID Division of Transportation Infrastructure Development

DTIM Division of Transportation Investment Management

FDM Facilities Development Manual

FHWA Federal Highway Administration

FOS Financial Operating System

MRUTC Midwest Regional University Transportation Center

NCHRP National Cooperative Highway Research Program

OAS Office of Administrative Services in DTID

RAC Research Advisory Committee
RCS Research Coordination Section

RD&T Research, Development and Technology Transfer

RFP Request for Proposal RFS Request for Services

RiP Research in Progress

SCOR Standing Committee on Research

SPR State Planning and Research

TAM Transportation Administrative Manual

TAU Technology Advancement UnitTOC Technical Oversight CommitteeTRB Transportation Research Board

TRIS Transportation Research Information Service

WHRP Wisconsin Highway Research Program

WisDOT Research Programs Information Services Survey

Thanks you for your assistance. Your responses to these survey questions will provide part of the background for the Research Peer Exchange April 9-11, 2002.

1. How important is research to successful performance of $\underline{your\ job}$ as a transportation professional? Circle the choice that best applies.			
Not important	Somewhat important	Very Important	Essential
Please explain.			
2. How importanthe choice that be		zation's achievement of its	transportation related goals? Circle
Not important	Somewhat important	Very Important	Essential
-	t are <u>up-front information s</u> est practices) to you and yo		earches and identification of existing choice that best applies.
Not important	Somewhat important	Very Important	Essential
Please explain.			
	t are <u>after-research informa</u> nd your organization? Circ		-English summaries and technology es.
Not important	Somewhat important	Very Important	Essential
Please explain.			

7. How effective are the following information services (whatever the source of the service) in helping you and your organization? Circle the best choice for each.

1=Not effective 2=Moderately effective 3=Highly effective			NA=Services not available DK= Don't know			
Help in accessing Web sites and research databases	1	2	3	NA	DK	
Easily accessible transportation library	1	2	3	NA	DK	
Surveys of best practices	1	2	3	NA	DK	
On-line technical discussion groups	1	2	3	NA	DK	
Digests of existing research	1	2	3	NA	DK	
Brief summaries of research results	1	2	3	NA	DK	
Training sessions in new technology	1	2	3	NA	DK	
Newsletters on current information and trends	1	2	3	NA	DK	
Annual report of research results	1	2	3	NA	DK	

Comments.

8. How often do you use the following organizations as sources of one or more of the information services listed in question number 7 above? Select the best choice for each.

1=Never 2=Seldom (less than once per month) 3=Occasionally (1-3 times per month)

4=Regularly (weekly or more often) NA=Services not available DK=Don't know

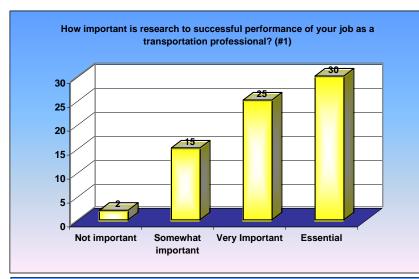
USDOT/FHWA & other federal agencies	1	2	3	NA	DK
Transportation Research Board	1	2	3	NA	DK
AASHTO	1	2	3	NA	DK
WisDOT research programs	1	2	3	NA	DK
Midwest Regional University Transportation Center	1	2	3	NA	DK
Company resources	1	2	3	NA	DK
Industry associations	1	2	3	NA	DK
Professional associations	1	2	3	NA	DK
Other state DOTs	1	2	3	NA	DK
Universities	1	2	3	NA	DK
Other (please specify)	1	2	3	NA	DK

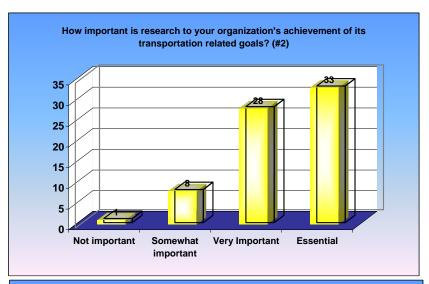
Comments.

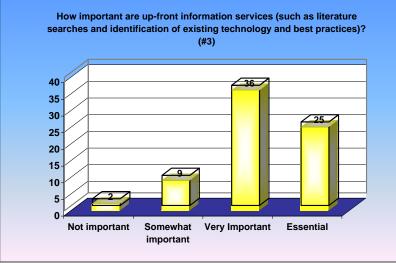
9. When accessing sources of information services such as those listed in question number 8, approximately how frequently do you use the following methods of contact? Select the best choice for each.				
1=Never 2=Seldom (less than once per month) 3 4=Regularly (weekly or more often)	=Occasionally (1-3 times _I	per month)	
Internet – World Wide Web E-mail Phone Fax	1 1 1 1	2 2 2 2	3 3 3 3	
Direct contact	1	2	3	
Comments.				
10. What top three transportation information servi available to you or your organization? Please identify and explain. a.	ces—that you co	onsider ver	y important—a	re currently <u>not</u>
b.				
c.				

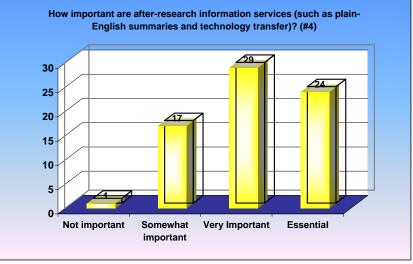
Please provide your name and contact information below. You will receive a summary of the survey results and the recommendations that are developed through the Peer Exchange process. Your input has been a great help.

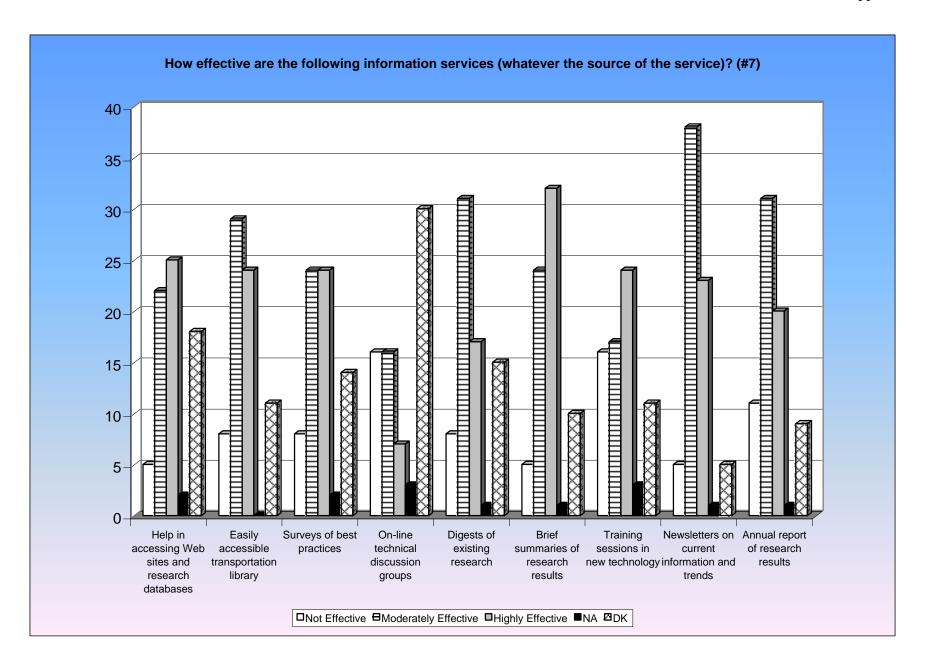
Name			
Organization		Job Title	
Address			
City	State		Zip
Tel	Fax		E-mail

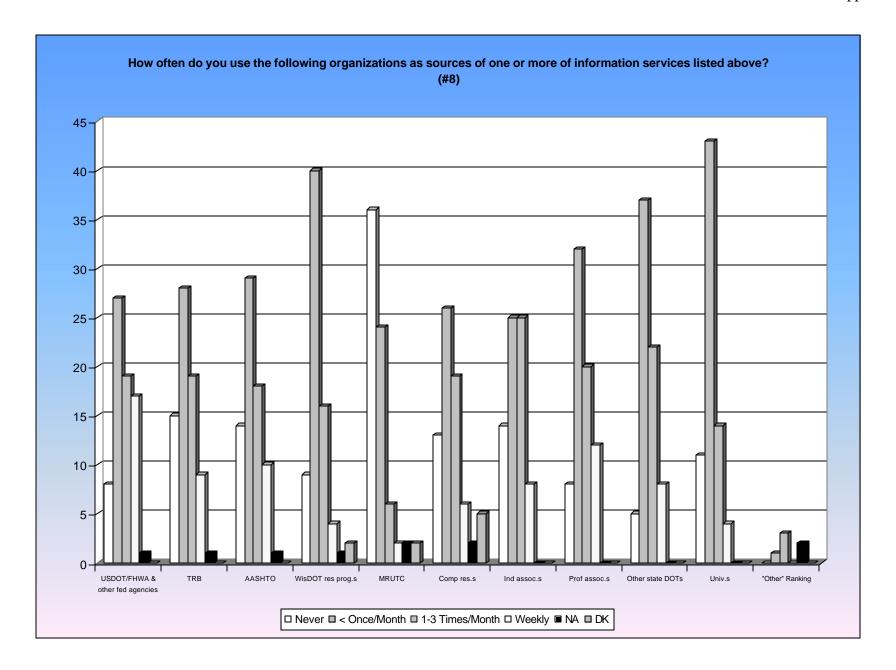


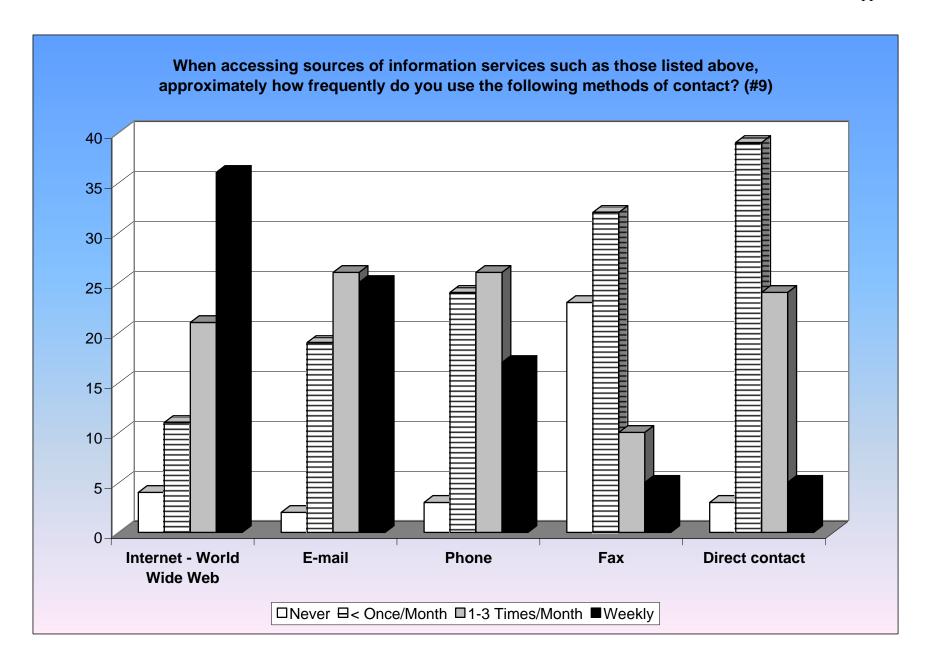












Question 1	How important in professional?	s research to successful performance of your job as a transportation lease explain.
Academia	Essential	My area is research.
	Essential	I am a researcher!
	Essential	Its what we do - the lifeblood of the environment is research.
	Essential	An essential part of my job is to conduct research and publish results in
		peer-reviewed journals.
	Essential	Cutting edge research and new methods are needed for all
		transportation professionals to provide the appropriate training,
		financing, and service to citizens.
	Essential	We need to do research as an integral part of our job.
Industry	Very Important	Background check for new employees.
-	Very Important	The research in our specialization, the fractured slab techniques of
		Crack/Break & Seat and Rubblization, is important for understanding
		the parameters that effect the concrete breaking process and their
		impact on pavement performance. I am often called upon to discuss
		these issues with owners, engineers and contractors and solid
		research is valuable to inform and back up my conclusions.
	Essential	Research in all phases/elements of transportation is absolutely critical
		to TDA and to planning for the future of transportation.
	Essential	New ideas have to be looked at and see if they can improve on the
		product. Otherwise, we will have the same old product.
	Somewhat	As a grading contractor, innovative ideas/research can only go so far to
	important	change the way we construct subgrades.
WisDOT	Very Important	Part of my Position Description.
	Somewhat	In my current position I am not directly connected to the day-to-day
	important	operations, but I am responsible for having a broad view of the division.
		New technology and research on better methods for service provision
		are essential elements to ensure that our division gets the biggest
		bang for our limited resources.
	Somewhat	I have been working as a Standards Development Engineer for the last
	important	1-1/2+ years and have relied heavily on various national research
	\ <u>\</u>	efforts to develop new policies and guidelines for the FDM.
	Very Important	It's important for to stay abreast of the latest efforts being
	\/	accomplished throughout the nation.
	Very Important	Research on new materials, methods, products, and procedures are
		very important to the Technical Services Section, being the Technical
	Computat	Experts of the District. Majority of my job duties are guided by existing standards and policies.
	Somewhat important	inajority of my job duties are guided by existing standards and policies.
	Very Important	It is very important for me, and essential for my staff. In my section we
	very important	handle the standards portion of highway design. Good research is
		essential in evaluating our options before we fully develop our
		standards.
	Essential	Transportation programs, plans, and projects involves national issues
	Loochta	as well as a state issues. A broad and in-depth look at the air quality
		issues that directly affect transportation is essential to our issue
		research and analysis.
	Very Important	Please note that I am answering the questions as it relates to human
	. or y important	resources.and not as it relates, in particular, to transportation. General
		research whether in the transportation setting or other setting is equally
		as relevant. Specific research, such as the stress research we are
		completing in DSP is also relevant.

Essential	Our office needs to research latest methods, concepts and tools in the field of organizational development so that we can integrate them into the way WisDOT does business and help support WisDOT's continued success.
Very Important	Changing and emerging technologies and institutional mechanisms are essential to effective traffic management and traffic incident management.
Very Important	New ideas and techniques are vital to improving processes or advocating for policy changes. Also, we need to be seen as experts-the most knowledgeable people at DOT on Env. Issues.
Very Important	More State funding would benefit ITS immensely. ITS Projects could be funded more easily with state match money if more cost/benefits or highway improvement benefits can be shown with ITS.
Very Important	In developing opinions for decision making on management and technical issues.
Essential	We need to be reviewing new organizational development ideas all the time. We try to make it a goal to devote 15% of our time to R&D but rarely accomplish this.
Very Important	Best practices and effective implementation of new technologies are crucial to continuing to perform our duties in the most effective way possible.
Very Important	Very often research findings are used to establish policy or guidelines. It is also used to explain the reasons a certain concept or design is considered favorable over another. It sometimes is generated from a source other than the specific state DOT and may be used to explain to local officials or citizens why we are doing what we are.
Essential	Developing Specifications, construction methods, and material requirements is part of my job.
Very Important	With constantly changing technology, it is important to research alternatives to existing technologies. Both in terms of solutions out there as well as TCO.
Essential	We need to keep spec updated so that our contract requirements can take advantage of recent technological advances.
Somewhat important	Seems to be a lot of new ideas on how to accept sub grades.
Very Important	Research assists in guiding future direction; business approach, processes, applications, etc.
Very Important	Transportation-related air quality issues tend to be transient laws, litigation, and policy changes all lead to changes in Department information needs. We often need information that either doesn't exist or that is just becoming available.
Very Important	I rely on staff for technical expertise.
Essential	New technology is critical to the way we do our jobs. Since OST is so
Essential	severely restricted we need to keep track of technology by research. A major responsibility of my job is to maintain currency on technology,
LSSCIIIai	and business practices.
Somewhat	My research has more to do with the IT field, but I do need to do a lot
important	of research in order to keep up with technology trends.
Somewhat important	Opinions without factual backing provided through research are not accepted by the public.
Very Important	Since my job includes development of standards and guidelines, I need to be aware of current research and practices in the field.

Essential	We must continue to explore new technologies and methods related to transportation. The public expects us to perform our jobs in the most efficient, cost effective way, and without research, we will not continue
	to provide the level of services the public demands and deserves.
Very Important	Having factual data for presentations and course curriculum is essential
Very Important	Public information is more meaningful when put into context and
	research provides the quantitative and qualitative data to accomplish
	that task. The public expects us to demonstrate benefits and results for publicly-funded programs
Essential	I need to research new technologies and existing to better advise and counsel my district and division in more effectively doing business.
Essential	I need to always know the latest in what others are doing in the areas of performance measures and benchmarking to help WisDOT in their efforts in these areas.
Very Important	Need to identify on the latest and best products and methods appropriate to my work.
Essential	The topic of my work, air quality, is a constantly changing and emerging one. In addition, other professionals in the field are far from Wisconsin, making interaction rare. Research be it finding a solution to a problem here, or looking at alternatives is vital to what we do.
Somewhat important	My job is to communicate the results of research by other people. I do only a little research concerning new communications techniques.
Essential	Research is essential for all Information Technology (IT) professionals. New technologies are out all the time, and an IT professional should keep up. I read and dig into new technologies every day.
Essential	As a writer, I need to research every issue or project that I work on.
Essential	We are continually introducing new products to implementation. We need research results to make good decisions on new products.
Somewhat	Although not necessarily important to interpreting and implementing
important	problem driver laws, research can provide information about our customers, which will help us serve them better. Research could also
	provide information about the effect current laws have and can lead to
	suggestions for law changes."
Essential	Technical research is what drives and determines the direction of
	technology in the Department
Very Important	Research is imperative to improve business practices. Additionally,
	research conducted for other transportation areas directly or indirectly
	impacts the level and type of support necessary from the business services functional area.
Essential	Work in the Technology Advancement Unit.
Somewhat	For the management/leadership profession, there are sometimes new
important	tools and techniques, but the fundamentals do not change as rapidly
•	as they do in technical areas.

Question 2	How important is research to WisDOT's achievement of its transportation related goals? Please explain.				
Academia	Essential	Building a national reputation for quality research.			
	Essential	An essential part of the University mission is to conduct research and			
		train students in research. My special area of research within the			
		University is transportation.			
	Essential	Research allows society and all organizations to make progress. That			
		progress involves improved efficiency and cost effectiveness.			
	Essential	We need to do research as an integral part of our job.			
Industry	Very Important	Background check for new employees.			
	Very Important	Our organization has a vested interest in the performance HMA and			
		PCC overlays placed on fractured concrete pavement. Long-term			
		pavement performance will ultimately determine the degree to which fractured slab techniques are use by owners. Solid research is required			
		to determine the most cost-effective means of achieving long-term			
		performance.			
	Essential	Research in all phases/elements of transportation is absolutely critical			
	Locomia	to TDA and to planning for the future of transportation.			
	Essential	If we can't improve our product, we will fall behind the rest of the world			
	Somewhat	Pavement life will affect long-term reconstruction plans.			
	important				
WisDOT	Essential	We have to continuously improve our way of doing business in all			
		areas.			
	Essential	If we do not try new things we will become stagnant.			
	Essential	In order for WI to stay a premier transportation agency, it is vital they			
		stay current on latest technology advances. Especially with our			
		"support multi-modal transportation through long-range planning".			
	 	Without research, we cannot forecast long-range efforts.			
	Very important	Research resulting in new mix designs, the latest geotechnical			
		materials, new testing procedures and equipment will result in more			
		cost effective, more durable bridges and highways with a minimum			
	Varyimportant	delay to our tax paying motorists. New information and standards are needed to help our organization			
	Very important	continually improve. These improvements are a direct product of			
		research efforts.			
	Very important	It doesn't relate to every goal we have, but is essential to establish a			
	vory important	sound foundation for our organization.			
	Essential	We need to be on top of national and local proposals and policy			
		options that could impact our transportation goals negatively or			
		positively. Wisconsin needs to be an active participant in developing			
		and recommending policy changes that ensure the achievement of its			
		transportation related goals. Research is an essential tool to this end.			
	Very important	I assume that it is important to transportation related goals in the			
		transportation areait certainly is important with respect to the HR			
		related goals.			
	Essential	It is critical that WisDOT integrate cutting edge strategies into the			
		development, delivery and maintenance of Wisconsin's transportation			
	Vamalaria t	system. Research allows us to do that.			
	Very important	Knowledge base development and knowledge management support			
		innovative, and cost-effective performance in both the development			
	Eccontic	AND operation of the transportation system.			
	Essential	Best Practices, Products and procedures, including customer satisfaction research			
		3au3id0u0111636a1011			

Carranidant	Wis DOT about discrete as and future and to about a size that are
Somewhat	WisDOT should implement future work and technologies that are
important	proven efficient, effective, and cost beneficial through research. The
	history of WisDOT's work does not show work based on research.
Essential	All goals have an element implying "best practices". Research is often
	needed to compare what others do and evaluating to determine "best
	practice".
Very important	In the past, research has not proven to be related to department
	problems/issues. If it is integrated into our mission it is important but if
	it stays on the outside, no one will use it.
Very important	If we are to increase efficiency and provide effective customer service,
very important	research provides key insights into process improvements.
Very important	Very often research findings are used to establish policy or guidelines.
very important	It is also used to explain the reasons a certain concept or design is
	considered favorable over another. It sometimes is generated from a
_	source other than the specific state DOT and
	May be used to explain to local officials or citizens why we are doing
_	what we are.
Essential	With limited resources, it is essential that Wisconsin stay on the cutting
	edge of technological advances.
Somewhat	Too slow to a finally adopt a solution. As a result, its lifecycle is half
important	gone by implementation.
Essential	We must keep pace with technology to determine how to best invest
	the taxpayer's dollars for an effective transportation system.
Somewhat	New ideas and acceptance practices need research prior to
important	implementation.
Very important	How else do you measure where we are going?
vory important	I don't feel qualified to respond.
Essential	Department needs to be current on best practices and research
Losermai	findings.
Very important	Are we talking about using research or funding research? I think it's
	very important to use current research. I'm not sure WisDOT always
	needs to fund research.
Very important	Research is the best way to keep up with new trends in the field.
Essential	Research is critical as we make decisions on how to improve safety &
	mobility, and as we improve our methods, materials and processes.
Essential	Continuous improvement is critical to meet the demands of changing
2000111101	trends, technologies and expectations. What was a "safe and efficient"
	transportation system 50 years ago is no longer true today. Research
	helps guide the department's ongoing quest to meet changing goals.
Essential	Research must be ongoing to assure that DOT is doing the best job it
Essential	can in bringing service to its customers in the most efficient manner
	possible.
Very important	Need to identify on the latest and best products and methods
	appropriate to my work.
Very important	The only way we can improve our products and services is to research
	new ideas.
Very important	Research will help IT become more efficient. Researching helps
• •	analyze present systems and predict future trends.
Essential	It's very important to know and understand what other states are doing.
Very important	If research results are objectively analyzed and then used as a part of
) ·······	the decision making process, then I think they are very important.
Essential	I think that it is critical. We cannot improve without research. A dollar
_000	spent on research today can save us millions in the future.
	Sport of robotion today our days do millions in the laters.

Essential	In order for WisDOT to continue to provide safe and efficient
	transportation systems we must continually keep pace with
	technologies that effect or utilize our transportation infrastructure.
Essential	Self-explanatory given the DOT's Budget and program.
Very important	We are stewards of the taxpayers' resources and whenever we can efficiently learn new ways to achieve our goals we become better
	stewards.

Question 3		re up-front information services (such as literature searches and existing technology and best practices)? Please explain.
Academia	Essential	Need to build upon previous work.
	Essential	If we could do this better many more would be served.
	Very Important	Duplicative efforts are a waste of resources so must be avoided at all costs.
	Essential	Without up-front IS, conducted research may be redundant or misguided.
Industry	Very Important	Things & plans change so fast hard to know what's what.
·	Somewhat	This information is very important but we are aware of existing
	important	technology and best practices in our specialty.
	Essential	Research in all phases/elements of transportation is absolutely critical to TDA and to planning for the future of transportation.
	Essential	No use doing two or more researches on the same product. No reason to do research just to keep people working.
WisDOT	Very important	This is how we make sure we aren't duplicating effort. It allows us to focus our efforts on bringing usable items to bear on our problems.
	Essential	Availability is essential.
	Very important	This service would reduce the time staff spends on these functions and advance our current efforts by eliminating possible duplication of efforts or identifying alternatives.
	Very important	It can prevent duplication of effort. Also prevent/reduce the "recreating of the wheel".
	Very important	The ability to search for and find current information on materials, procedures, equipment, and costs, quickly will increase productivity, lower our overhead rate, and provide timely advice to our internal and external customers.
	Very important	Especially in the areas of driver behavior, and construction mat's and methods.
	Essential	Information services (literature, best practices, etc) could well provide the range of documentation and technical support for recommending policy/program changes.
	Essential	This cutting edge information does not just knock on one's door. We need to proactively pursue that information and literature searches etc. is one way to do that.
	Very important	Quick understanding of previous experiences in a knowledge area can save time and money in technical and business analyses.
	Very important	Best Practices, Products and procedures, including customer satisfaction research
	Very important	With literature searches and best practices, research does not "re- invent the wheel" and waste research dollars on inefficient methodologies or tasks.
	Essential	All goals have an element implying "best practices". Research is often needed to compare what others do and evaluating to determine "best practice".
	Very important	Some of this work can be done by operational staff with Internet searches.
	Somewhat	Don't use them myself to any great extent - rely on others to provide
	important	expertise.
	Very important	It is important to focus limited funding on issues that have not been studied.
	Essential	It is essential that I have on-line access to up-to-date research.

Very important	It is important to engage the business partners affected by the new system. As a result, projects have limited success since they don't meet all of our needs.
Very important	Sometime a literature search may be all that is required.
Very important	Give direction and support to activities.
Not important	In our area, applicability of practices elsewhere is very hit or miss. Doesn't seem like a good use of resources to compile up-front information until/unless a specific need is identified.
Very important	If someone has used a particular technique to accomplish a goal you need to meet, it is much better to you their experience then to "reinvent the wheel".
Very important	Unfortunately our ability to tie into this information is underutilized and not well advertised.
Essential	We need to know about successful practices and research results in order to apply them in our work, and to avoid duplicative research.
Very important	These services greatly enhance efficiencies and contribute to quality practices.
Essential	I use several online newsletters from many types of resources to get current information on existing technology and best practices (such as Gartner, Giga, MS Technet, TechRepublic, governmental IT resources, ESRI Mapping best practices, etc.)
Essential	Knowing what technology exists and being aware of other states' experiences/best practices is essential for continuous improvement for all the different areas/services provided within WisDOT
Essential	Need to identify on the latest and best products and methods appropriate to my work.
Very important	This gives us the basis on which to proceed.
Very important	A good literature search can avoid a lot of re-inventing the wheel.
Very important	Makes everything a little bit easier.
Essential	At the very least it may identify areas where DOT is lagging behind in its service delivery. Technology is a perfect example.
Essential	We save lots of money in technical research by investigating what others are doing. We could never meet the department's research needs if literature searches were not done.
Essential	It is essential that up-front information services be readily available and reliable to support functional areas.
Essential	That is the nature of our work
Very important	These give us a starting point for proposed efforts.

Question 4		are after-research information services (such as plain-English technology transfer)? Please explain.
Academia	Essential	These are great for overview before digging further.
	Very Important	Communicating results = implementation. If the research sits on a
		shelf it is no good for anyone.
	Essential	The Research part of the University mission includes disseminating
		information about the conducted research. Although the target
		audience for University research is mainly other researchers, it is also
		important to communicate findings with engineers and administrators
		as well, something that is currently lacking.
	Essential	Info dissemination is an essential ingredient - without it how does
		research benefit society.
	Very Important	If people don't understand the research project it is useless.
Industry	Very Important	We are always striving to obtain information related to our specialty.
	Essential	TDA is a critical link on all transportation matters and all transportation
		stakeholders. Given our broad cross-section of members, many of who
		are not transportation professionals - relaying information in simple,
		easy to understand formats is critical.
	Essential	Summaries in plain English will help put product to work. Not all people
		are researchers.
WisDOT	Essential	Too often good research is never finished nor implemented.
	Very important	This service would reduce the time staff spends on these functions and
		advance our current efforts by eliminating possible duplication of
		efforts or identifying alternatives.
	Somewhat	I think this could help reduce a person's time considerably when
	important	reading a "plain English summary" versus all the supporting
		documentation. (This is how I would see it)
	Very important	To me as a manager, reading the summaries and recommendations of
		a 1" thick report on any subject, utilizes my precious time wisely and
		keeps me informed and up-to-date with what is happening technology-
	Somewhat	wise in Technical Services Activities.
	important	These services are really project-specific; I haven't dealt with these services much in my position.
	Somewhat	Generally, we can understand the research as presented. Technology
	important	transfer is a more important service.
	Essential	The occasions that I have had to read plain-English summaries have
	LSSCIIIIAI	proven invaluable. These kinds of summaries provide information to a
		wider audience; help the professional to distill the information into a
		usable and transferable format and to boil down information into the
		essence of the discussion. (I'm not sure what you mean by "technology
		transfer")
	Somewhat	I'm not exactly sure what this entails.
	important	Thirt oxagay care what the original
	Essential	These services can enable quick and preliminary assessment of the
		relative effectiveness of alternative transportation system strategies.
	Very important	These "plain-English" summaries benefit the public in WisDOT's
	,portant	reports to our employer: the citizens of Wisconsin.
	Essential	Important to be using the most current information available.
	Essential	If you can't do this then don't even start the research.
	Very important	It is needed to relate to the none engineer or technical person. It also
	. c.,portant	provides a quick overview of findings.
	Very important	Because of the tremendous amount of information, summaries are
	. or y important	very important in order to sift through. Electronic transfer is essential.
-		10.7 important in order to out through. Electronic transfer to cosential.

Somewhat important	A good way to help improve the success of future projects.
Very important	Doesn't do any good to do the research if we don't know the results that were found upon completion of the study.
Very important	Too many times after the research is finished, vague or uncertain results are reported.
Very important	Effectively communicate both internally and externally
Somewhat important	It's helpful to have information out there to scan once we identify a need.
Not important	The research should be completed in such a manner that it is understandable by all. Or it should be reviewed by people who can understand it.
Somewhat important	If you actually start implementing, (go for funding) then these are extremely important. Otherwise they are not needed.
Essential	If we can't understand it, how can we make use of it?
Essential	Information must be provided to people who can implement the research results.
Very important	The technical practitioners must obtain the information in a way that allows them to apply it. At the same time, very different information is needed to enable non-technical audiences to understand and appreciate the issue.
Essential	Summaries are good for high-level decision support. For detail, one would then drill down to full reports.
Essential	Short synopses of research findings help save time and effort sorting out the info.
Very important	Saves time and again, gives us a basis on which to proceed.
Very important	This is a more proactive approach and can provide help and new ideas to people who weren't even looking for them but could still use them.
Very important	As a non-engineer, it's important for me to understand technical issues.
Very important	What is a technology transfer? A plain English summary is very important. DOT provides a broad array of complex services. Plain English summaries can bridge the gap between experts and non-experts.
Essential	Post analysis of research sets the direction for follow-up research as well as research implementation
Essential	In many instances information is of little usefulness without first being translated in a more usable format, depending on the intended recipient or user.
Essential	That is the nature of our work
Very important	On-line literature searches from completed research studies are very useful in developing public information materials.

Question 7	Comments - How effective have you found the following information services (whatever the source of the service)?	
Academia	RE: Training sessions in new technology A. New technology on accessing info or B. New technology identified through research (e.g. new paving materials) A. is important for my research work	
Industry	Due to the highly specialized nature of our business, any source that can identify research related to this specialty is very useful.	
WisDOT	I found this question somewhat confusing. I basically interpreted DK to mean that I am currently not accessing this information to a full extent BUT would like to know how to do so, etc. I did not pick NA because I suspect that these things are available	
	I'm just not accessing it in the most advantageous manner.	
	Again, I have based my comments on HR information that I receive personally or as an employee of DOT.	
	Refer researches to our Librarian.	
	If the research or at least a digest of the research is not on-line, I don't use it.	
	I do not know how we get these services.	
	Can't say I can clearly recall or relate to the above. Perhaps more aggressive internal outreach is required for State Level efforts?	
	More effective to me too see other states info.	
	There is no substitute for direct contact with peers and experts in the field.	
	I don't believe We've made good use of research findings. Especially in terms of practical implementation.	
	Professional magazines and newsletters are also helpful.	
	As a front line supervisor, I don't have the opportunity to use many of these things. If I did my answers may be more favorable. The first question didn't make sense to me.	

Question 8	"Other" - How often do you use the following organizations as sources of one or more of information services listed above?
Industry	European Transport Organizations
WisDOT	Personnel within WisDOT
	Australia and Canada's research communities. (Usually government agencies)
	Again, I am an IT professional, so I generally don't go to Civil Engineering cites unless it
	has to do with ITS.
	The Web: wired.com, cio.com, cnet.com, techrepublic.com, oracle.com, microsoft.com,
	sun.com, ibm.com
	Trade magazines and associated web sites
	Legislative reference bureau.

Question 8	Comments - How often do you use the following organizations as sources of one or more of information services listed above?
WisDOT	Since the Mining the Internet Training last week, I plan to access these resources more frequently and take advantage of the resource diversity available. This isn't reflected in my answers.
	Aware of external, but not fully about internal, specifically WisDOT & MRUTC

Question 9	Comments - When accessing sources of information services such as those listed	
	above, approximately how frequently do you use the following methods of contact?	
Academia	Library-Use hardcopies of AASHTO specs & manuals and journal articles (TRR etc)	
Industry	Generally receive published reports from TRB, American Public Transportation	
	Association, Federal Transit Administration, etc.	
WisDOT	Regular (weekly or monthly) emails with short (1-2 sentence) summaries and embedded url's offer the most active source of information. e.g. "Wagenblast daily ITS newsletter" - For a free subscription please send an e-mail message to: transport-	
	communications-subscribe@yahoogroups.com	
	Although the Internet is convenient, reliability of information can be questionable at times.	

Question 10	n 10 1 - What top three transportation information services - that you consider very important - are currently not available to you or your organization?		
Academia	Plain English digests of research.		
	Silver Platter or other services providing access to International literature, not available		
	through TRIS, UC Berkeley or Northwestern U libraries.		
	Well maintained electronic library with full text of research reports		
	Organized state DOT funded research summaries		
	Sources of Japanese literature.		
	Ongoing research at states and schools -usually not in TRIS.		
	Easily accessible digests of current issues. We need more general transportation publications.		
	Surveys of best practices - some are available, not all		
Industry	We are not aware of services that are available.		
•	A number of years ago WisDOT produced & shared with TDA a series of multi-year trends		
	(see attached 23 page example). The department has not produced in over a decade		
	despite requests. Good information should be made available.		
	I don't have time to track information. When I want info I will call universities, professional		
	associations, and contractors.		
	Six-year highway improvement program reports.		
WisDOT	Searches for information on potential WisDOT research topics, i.e. literature searches.		
	These services may be available, but not known or easily used.		
	Easily accessible transportation library. I would like to see a library that is centrally located		
	and has DOTnet search capabilities of available periodicals, articles and research by title,		
	subject or author. This would all		
	One file with links, brief summary of available info etc. to all the different reference sources		
	for transportation related research		
	Council of state governments.		
	Online knowledge intermediary services		
	TRIS is on-line as a "look-up" service, but TRB needs to post their reports on-line, too.		
	Direct Microsoft contact instead of one or two DOT product experts.		
	I think everything I need is available. The problem is time to go on-line.		
	This is a strange question because the information services that are important are available		
	to me.		
	Brief one page summaries of latest research results		
	National and regional peer exchange meetings, seminars, etc.		
	I'm not sure. If we were more aware of the potential value of some of these services, we		
	might use them more.		
	Quantitative data on public perceptions of WisDOT services and programs. Upcoming COR		
	project on customer satisfaction measures will help address this.		
	Database of other state best practices in technology		
	None that I know of.		
	Project Tracking Web Application for Districts:		
	Streamline information tracking throughout the project life cycle.		
	I don't know how to access many of the transportation information services on the Web.		
	Need to take your course.		
	Library, ours is currently out of commission because of lack of staff		
	None that I'm aware of.		
	Centralized DOT Library Services - Currently the research library collection are not		
	coordinated.		
	Written guide/training for performing individual web literature searches for potential		
	research topics or areas of new technology/developments.		
	Functional librarians (e.g. an information services guide for traffic operations and Intelligent Transportation Systems)		

I would like to see a database/search engine (similar to TRIS) of all reports, papers, etc generated here in WisDOT.

Association meetings where trends and directions are being either set or discussed

Peer Exchange - need more interaction with peers. Video conferencing, internet discussion groups, etc.

Permits Web Application for Districts: Includes all permits handled by DTD i.e. driveway, utilities, construction, parade, and lighting

Some out of state networking.

A single point electronic location that can be consulted to find all existing research studies/information about particular topics of interest. (Or that can direct me to the proper location.)

Topical executive summaries, and other tools for executive outreach (e.g. a library of PowerPoint presentations summarizing recent traffic safety research relevant to WISDOT strategic and business plans).

I would like to see other State DOT's start posting their Research Reports, paper, etc. on the Internet. Wisconsin needs to do the same. FHWA is planning to post all 50 state DOT Construction specifications on-line so that they can be readily accessed,

Searched, and compared by the entire industry. Those sort of ideas need to be ""front and center"" here in WISDOT. We are barely using the Internet or dotnet.

Orientation sessions relevant issues run by USDOT, AAMVA, AASHTO, etc.

Current information - All research information has a shelf live. Information needs to be current.





Wisconsin Department of Transportation



WisDOT Library

WisDOT Survey of statewide transportation collections

Thank you for your participation. Your responses to the following questions will be used as background material for the Peer Exchange on WisDOT's Research Programs that will take place Apr. 9-11, 2002. The results will be available after March 31st. Your help is greatly appreciated.

Please complete the following contact information:	
First Name:	
Last Name:	
Job Title:	
Organizational affiliation:	
Email address:	
Note: For questions requiring a single answer, please mark with an 'x Customers/Services	
1. What types of customers use your library? (please check all that apply):	
☐ General Public ☐ Students - undergraduate and high school ☐ Students - graduate and Ph.D. ☐ Consultants ☐ Academic faculty	_
Other (please specify):	
2. Is your library open to the general public?	
C Yes C No	
If yes, what restrictions, if any, exist on borrowing privileges for the general p	public?

Staff

How many people currently are on staff in the library?
O 1 to 2 O 3 to 5 O 5 to 10 O 10 to 25 O over 25
10. How many library science or related professionals work on the staff?
C 1 to 2 C 3 to 5 C 5 to 10 C 10 to 25 C over 25
Collection
11. What is the scope of your collection?
C Local C Regional C National C International C Combination of the above
12. Please estimate the percentage of your collection devoted to transportation-related issues
© 0-25% © 26-50% © 51-75% © 76-100%
13. Please estimate the number of items that exist in your library collection (this includes books, technical reports, audio-visual materials, CD-ROMs and online publications.
C under 10,000 C 10,001 - 25,000 C 25,001 - 40,000 C 40,001 - 75,000 C 75,001 - 100,000 C over 100,000

14. Please estimate the number of journals to which your library subscribes.									
C under 20 titles C 21 - 50 titles C 51 to 75 titles C 76 - 100 titles C over 100 titles									
15. Which type of cataloging classification does your library use?									
C Library of Congress C Sears C Dewey C in-house or local									
C other, pleas	e specify:								
following topica	I areas within the	transportation d	iscipline. Select	n is strong in repre the one response as (N/A = not appli	which best				
Note: a collection in which you strongly agree has a strong representation in a given topic would mean a considerable number of items, (ex. over 300 items) along with items that are current or largely peer-reviewed. A collection in which you would strongly disagree would have relatively few items (under 50) devoted to the topic, along with an older, less current representation. a. Our aerial mapping section is strong									
Ctron other			Ctrana alice						
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
b. Our transportation planning section is strong									
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
c. Our highway engineering section is strong									
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
d. Our bridge engineering section is strong									
					П				
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				

e. Our railroad engineering section is strong

			П		П				
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
f. Our transit collection is strong									
П	П	П	П	П	П				
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
g. Our motor vehicles section is strong									
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
h. Our aeronautics section is strong									
п	П	П	П	П	П				
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
i. Our high speed rail section is strong									
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
j. Our ITS (Intelligent Transportation Systems) section is strong									
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
	k. Our	transportation	safety section is	strong					
П	П	П	П	П	П				
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
Our GIS (Geographic Information Systems) section is strong									
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A				
		Disagree Our police scie n	Disagree		N/A				
			Disagree		N/A				

n. Our water transportation section is strong

Strongly Agree	Agree	Disagree Strongly Disagree		Don't know	N/A		
o. Our intermodal section is strong							
Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	N/A		

/ tgrcc			Disagree		
Outreach / Ac	cess				
17. What is the	URL of your onl	ine catalog, if one	e exits?		
18. What perce	entage of your co	llection is search	able online throu	gh the world wide	web?
C 0-25%					
C 26-50%					
C 51-75%					
C 76-100%					
19. Can a patro	on place a hold o	n an item through	your online cata	log?	
O Yes O No	C Sometimes				
If you answered patrons that car		ease describe the	e special circums	tances or particu	ılar group of
20. Is the status		lable through you	r online catalog?	(Ex. if the item i	s 'checked out

Ciyes CiNo

21. If your collection is accessible through an in-house database, what is the system used?
C InMagic
C Cuadra
C Sirsi
C Athena
O MS-Access
C Other, (please specify):
22. Please describe the types of promotional or outreach publications your library produces: (please check all that apply)
☐ Informational brochures
☐ Newsletter
☐ Vertical file listing
Recent acquisitions listing
☐ Journal listing
Other (please specify):
23. In which environment do you catalog your materials?
O OCLC (fully-featured)
C WisCAT client software
C CatME Express
C Voyager
Other, (please specify):

Thank you for your time in completing this survey!

Peer Exchange Library Survey Results - External Transportation Collections Services/Staff

	Customer Types	Open to General Public?	Borrowing restrictions for general public	Specialized services	Pay Databases	Patron visits per day	Reference questions per day	ILL policy	Staff members	Library science professionals on staff
UW Madison MRUTC	Students, faculty, UW staff	No		Interlibrary loans to spe- cific inquiries		Less than 5	Less than 5	Provides for all cus- tomers	1 to 2	None
UW-Madison Business Library	General public, students, con- sultants, fac- ulty	Yes	Need deposit card from UW Memorial Li- brary	Interlibrary loans, refer- ence desk, printed guides	H.W. Wilson, Dow Jones, Readers Guide, Lexis/Nexis, others	Over 100	Between 5 and 100	For UW Madison stu- dents, faculty and staff	5 to 10	3 to 5
UW-Madison Memorial Library	General public, students, con- sultants, fac- ulty	Yes	Need deposit card	Reference desk, printed guides, indi- vidual assis- tance by appt.	SilverPlatter, H. W. Wilson,Dow Jones, Readers Guide,Lexis/ Nexis, others	Over 100	Between 5 and 100	For UW Madison stu- dents, faculty and staff	260 Full Time, plus students	102 Library profes- sionals, 158 para- professionals
UW-Madison Geography Library	General Public, students, fac- ulty	Yes	Need deposit card from UW Memorial Li- brary	Reference desk help		Over 100	Less than 5	Performed by other campus libraries	1 to 2	1 to 2
UW Madison Wendt Engi- neering Library	General Public, students, fac- ulty	Yes	Need deposit card from UW Memorial Li- brary	Interlibrary loans, refer- ence desk, printed guides	SilverPlatter, H. W. Wilson,Dow Jones, Readers Guide,Lexis/ Nexis, others	Over 100	Between 5 and 100	For UW Madison stu- dents, faculty and staff	Over 25	10 to 25
UW Madison Steenbock Ag- ricultural Library	General Public, students, fac- ulty	Yes	Drivers Li- cense used as ID for borrow- ing	Lit. searches, Custom bibs, ILLs, Refer- ence desk, printed guides	Silver Platter, H. W. Wilson, Readers Guide, Lexis/Nexis, ProQuest, Eb- scoHost	Over 100	Between 5 and 100	For UW Madison stu- dents, faculty and staff	10 to 25	10 to 25
UW Oshkosh Polk Library	General Public, students, fac- ulty	Yes	Must be a Wis- consin resi- dent	ILLs, Reference desk	SilverPlatter, H. W. Wilson, Readers Guide, Lexis/Nexis	Over 100	Between 5 and 100	For UW Oshkosh stu- dents, faculty and staff	Over 25	10 to 25
UW Green Bay Cofrin Library	General Public, students, fac- ulty	Yes	Need a public library cour- tesy card or community card	ILLs, refer- ence desk, printed guides	SilverPlatter, H. W. wilson, Readers Guide, Lexis/Nexis, others	Over 100	Between 5 and 100	For UWGB students, faculty, staff and gen- eral public on a cost- recovery basis	10 to 25	10 to 25
UW LaCrosse Murphy Library	General Public, students, fac- ulty	Yes	Limited to 3 passes from public library/ year or com- munity card	ILLs, refer- ence desk	SilverPlatter, Dow Jones, Lexis/Nexis, EbscoHost, others	Over 100	Between 5 and 100	For UW LaCrosse stu- dents, faculty and staff	Over 25	10 to 25
UW Milwaukee Center for Ur- ban Transpor- tation Studies	Graduate and Ph.D students, faculty	Yes	Must sign out documents, but preferred not to lend		TRIS	Less than 5	Less than 5	Provides to individual requests	None	None

Peer Exchange Library Survey Results - External Transportation Collections Library Collection

•	Collection Scope	Percentage devoted to transporation	Total collection size (in items)	No. of journal subscriptions	Classification system	Transportation-related strengths in collection
UW Madison MRUTC	Combination local, regional, national and international	76-100%	Under 10,000	Under 20 titles	N/A	Transportation Planning, Highway Engineering, ITS, Transportation Safety,
UW-Madison Business Library	Combination local, regional, national and international	0-25%	over 100,000	over 100 titles	Library of Congress	None
UW-Madison Memorial Library	Combination local, regional, national and international	0-25%	Over 100,000 (total) Under 10,000 transportation items	Over 100 titles (total) Under 20 titles (transportation)	Library of Congress	N/A - referred to Wendt Engineering Lib
UW-Madison Geography Library	International	0-25%	40,001 - 75,000	over 100 titles	Library of Congress	Aerial Mapping, Geographic Information Systems
UW Madison Wendt Engi- neering Library	National	0-25%	Over 100,000	Over 100 titles	Library of Congress, SuDocs	Transportation Planning, Highway Engineering, Bridge Engineering, Transit, Transportation Safety, Intermo- dalism.
UW Madison Steenbock Ag- ricultural Library	Combination local, regional, national and international	0-25%	Over 100,000	Over 100 titles	Library of Congress	
UW Oshkosh Polk Library	Combination local, regional, national and international	0-25%	over 100,000	over 100 titles	Library of Congress, in-house or local, SU Docs and WI Classification System	Motor Vehicles, Aeronautics, Transportation Safety, Police Science
UW Green Bay Cofrin Library	Combination local, regional, national and international	0-25%	over 100,000	over 100 titles	Library of Congress, SU Docs for federal	Transportation Planning, Transit, Motor Vehicles, Transportation Safety
UW LaCrosse Murphy Library	Combination local, regional, national and international	0-25%	Over 100,000	Over 100 titles	Library of Congress	Transportation Safety, Geographic Information Systems,
UW Milwaukee Center for Ur- ban Transpor- tation Studies	Combination local, regional, national and international	76-100%	under 10,000	under 20 titles	in-house or local	Transportation Planning, Highway Engineering, Transit, Intermodalism

Peer Exchange

Library Survey Results - External Transportation Collections Outreach/Access

•	URL of online catalog	% of colleci- ton search- able online	Can a patron place a hold?	Item status field in online catalog?	In-house data- base?	Cataloging environment	Outreach publications
UW Madison MRUTC	None	0-25%	N/A	N/A	None	N/A	None
UW-Madison Business Library	Http://madcat.library. wisc.edu	76-100%	Only for UW students/ faculty/staff	Yes	Voyager (local)		Recent acquisitions/Journal listing on web site
UW-Madison Memorial Library	Http://madcat.library. wisc.edu	76-100%	General public with a Memorial library card	Yes	Voyager (local)	OCLC, Voyager	Informational brochures, Newsletter, electronic journal listing, Magazine
UW-Madison Geography Library	Http://madcat.library. wisc.edu	76-100%	No	Yes	Voyager	OCLC, Voyager but cataloging performed offsite	Recent acquisition listing (electronic)
UW Madison Wendt Engi- neering Li- brary	Http://madcat.library. wisc.edu	26-50%	Yes, if UW- Madison affiliate	Yes	Voyager (local)	OCLC, Voyager	Informational brochures , electronic journal listing.
UW Madison Steenbock Agricultural Library	Http://madcat.library. wisc.edu	76-100% (book collec- tion)	Yes	Yes	Voyager		Informational brochures
UW Oshkosh Polk Library	Http://polkweb.uwosh. edu	76-100%	No	Yes	Endeavor/Voyager	OCLC, voyager	Newsletter, Informational brochures
UW Green Bay Cofrin Library	Http://cofrinweb.uwgb. edu	26-50% (most federal documents not cataloged)	Sometimes, only for items cur- rently checked out	Yes		OCLC	Informational brochures
UW LaCrosse Murphy Li- brary	Http://library.uwlax. edu		No	Yes		Voyager	Informational brochures, Newsletter, Recent acquisitions listing
UW Milwau- kee Center for Urban Trans- portation Studies	N/A	0-25%	No	N/A	N/A	N/A	N/A

Peer Exchange Library Survey Results - WisDOT Collections Services/Staff

	Customer Types	Open to General Public?	Borrowing restrictions for general public	Specialized services	Pay Databases	Patron visits per day	Reference questions per day	ILL policy	Staff members	Library science professionals on staff
District 2 Library	General public, graduate stu- dents, consult- ants	Yes		Literature searches, Interlibrary loans, refer- ence desk	Uses Wilson Web and Read- ers Guide at UW-Waukesha	Between 5 and 100	Less than 5	Provided to all customers	1 to 2	1 to 2
District 4 Library	WisDOT staff	Yes		Highway- related ser- vices		Less than 5	Less than 5		1 to 2	None
District 5 Library	General public, consultants	Yes		Print guides		Between 5 and 100	Less than 5	N/A	1 to 2	None
District 6 Library	WisDOT Employ- ees, County Highway Employ- ees	No				Less than 5	Less than 5		None	None
District 7 Library	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	None	None
District 8 Records Center	General public, consultants, staff	Yes				Less than 5	Less than 5	Will loan for an occa- sional individual re- quest	1 to 2	None
Truax Materials Lab Library	WisDOT employ- ees	No		Interlibrary loans, techni- cal reference materials		Less than 5	Less than 5	Will lend materials to WisDOT staff as well as provide new copies of technical reports	None	None

Peer Exchange

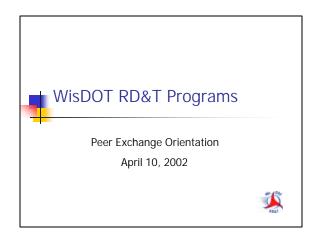
Library Survey Results - WisDOT Collections Library Collection

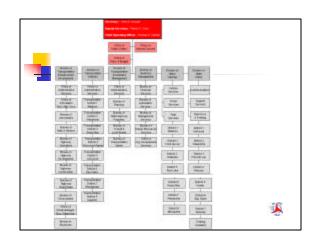
	Collection Scope	Percentage devoted to transporation	Total collection size (in items)	No. of journal subscriptions	Classification system	Transportation-related strengths in collection
District 2 Library	Combination of Local, Regional, National and International	76-100%	10,000 - 25,000 items	21-50 titles	Library of Congress	Transportation Planning, Highway Engineering, Bridge Engineering, Transit, High Speed Rail, ITS (Intelligent Transportation Systems)
District 4 Library	Combination of Local, Regional, National and International	76-100%	Under 10,000 items	Under 20 titles	Library of Congress	Transportation Planning, Highway Engineering, Bridge Engiineering, Railroad Engineering, ITS, GIS (Geographic Information Systems)
District 5 Library	Combination of Local, Regional, National and International	51-75%	Under 10,000 items	Under 20 titles	In-house	Aerial Mapping, Transportation Planning, Highway Engineering, Bridge Englineering, Transit, Transportation Safety, GIS, Intermodalism
District 6 Library	Combination of Local, Regional, National and International	76-100%	Under 10,000 items	Under 20 titles	In-house	Highway Engineering, Transportation Safety
District 7 Library	Combination of Local, Regional, National and International	76-100%	200 items	Under 20 titles	N/A	
District 8 Library	Combination of Local, Regional, National and International	76-100%	Under 10,000 items	Under 20 titles	In-house	Aerial Mapping
Truax Materials Lab Library	Combination of Local, Regional, National and International	76-100%	10,000 - 25,000 items	Under 20 titles	In-house	Highway Engineering, Bridge Engineering,

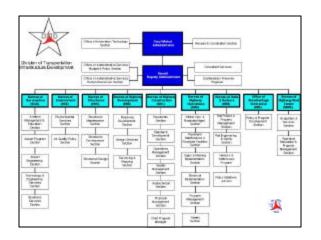
Peer Exchange

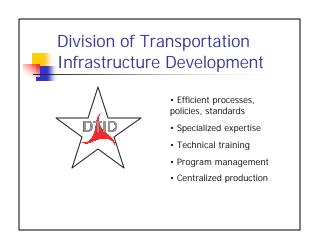
Library Survey Results - WisDOT Collections Outreach/Access

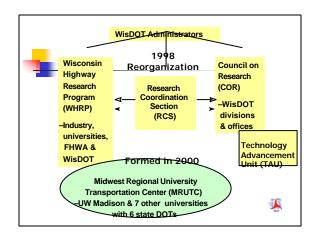
	URL of online catalog	% of colleci- ton search- able online	Can a patron place a hold?	Item status field in online catalog?	In-house data- base?	Cataloging environment	Outreach publications
District 2 Library	N/A	0-25%	No	No	MS-Access	Other	Occasional notes in the District 2 newsletter
District 4 Library	N/A	0-25%	No	No	Other	None	None
District 5 Library	N/A	0-25%	N/A	N/A	MS-Access	WisCAT	None
District 6 Library	N/A	N/A	No	No	Index on intranet	MS-Word	Brochure, Journals, Training and Highway Engi- neering Manuals
District 7 Library	N/A	N/A	N/A	N/A	N/A	N/A	N/A
District 8 Library	N/A	0-25%	No	No	MS-Access	N/A	None
Truax Mate- rials Lab Library	N/A	0-25%	No	N/A	MS-Access	MS-Access	None

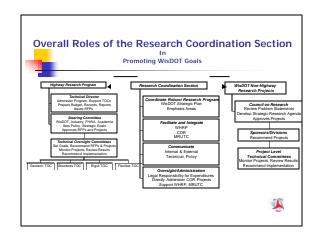


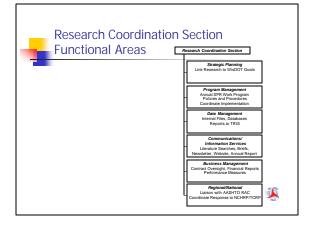














1998 Peer Exchange —Strengths of RD&T Program

- WisDOT Central Office and District Office support
- University and private sector resources and relationships
- Strong commitment to research by WisDOT staff
- History of successful research resulting in savings and streamlining





1998 Peer Exchange —Challenges

- Institutional placement of research current and future
- Who's in charge?
- Research must address WisDOT needs
- Allow for expansion into Wisconsin transportation research center





1998 Peer Exchange—Opportunities

- Tie research to WisDOT strategic plan
- Enhance WisDOT role of synthesizing and sharing research
- Improve overall communication regarding RD&T internally and externally
- Establish a process to monitor and evaluate implementation
- Leverage information and funding sources





Focus areas - 1998-2002

- Strategic planning
- Program streamlining
- Communications and marketing
- Program evaluation
- Information Services

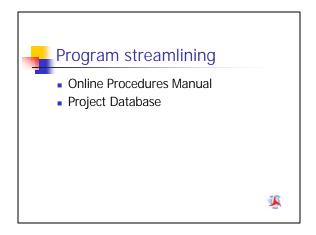


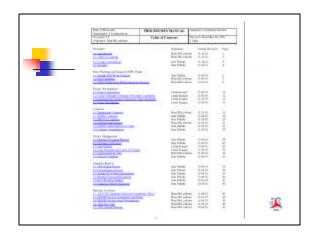


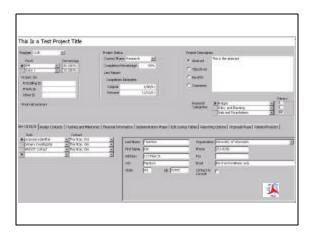
Strategic planning

- Revised Program Management Plan affecting all RD&T programs
- Aligned funding cycle and rationale for all programs with department strategic plan and bureau business plans
- Revised COR mission and guiding principles to focus on RD&T as department tool





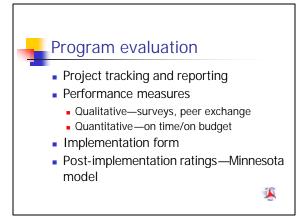


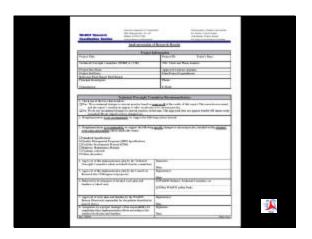








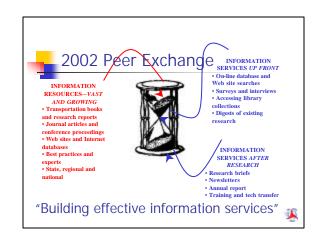














Positive focus for all involved

- Sharing of information a high priority
- Diminishing resources require leveraging of existing technology and best practices
- Transportation agencies are in a new era of managing assets for optimum performance, life and value—requires increased emphasis on knowledge and technology.





- Steve Krebs, WisDOT Bureau of Highway Construction
- Jeff Western, WisDOT Division of Business Management
- Alan Rommel, WisDOT District 3
- John Cherney, WisDOT Librarian
- Ernie Wittwer, MRUTC at UW-Madison
- Mark Chandler, FHWA Wisconsin Division
- Nina McLawhorn, WisDOT Research Coordination Section
- Patrick Casey, Technical Communications Consultant

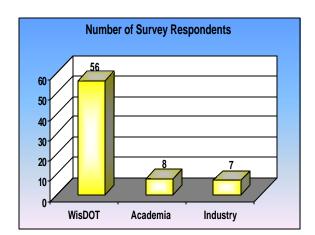


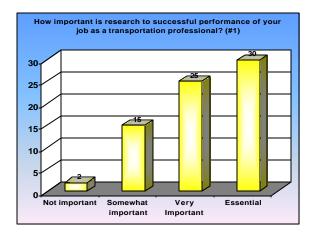


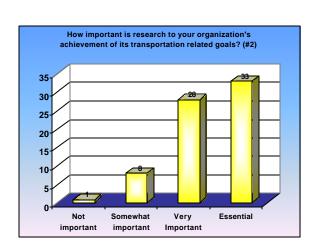
Summary of surveys related to Peer Exchange

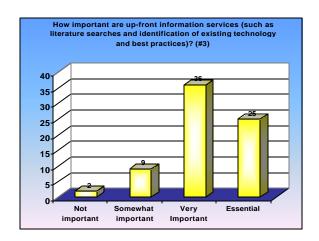
- Wisconsin libraries
- WisDOT staff, academia, industry

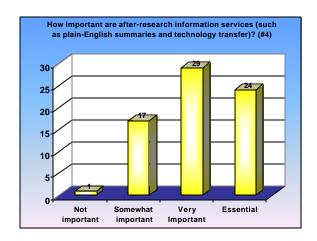














Agenda for Peer Exchange

- Logistics
- Discussion questions
- Format for report on April 11

